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## ORIGINAL ARTICLES

### AN INTERESTING CASE OF RETENTION OF FOREIGN BODY BELOW THE ORBIT*


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Mr. A. L. M. was brought to my office July 10, 1908, by Dr. R. G. Olson of Muskegon Heights, for consultation in the matter of diagnosis and treatment. The patient gave a history as follows: On the 31st of December, 1898, the patient, a blacksmith by trade, was adjusting the sight of a Remington rifle. In testing the rifle he used an enormous charge, about 90 grains, of smokeless powder. When the rifle was discharged, it burst open at the breech. The patient received an injury of the face just below the left eye. There was a large gaping wound. He immediately sought medical aid. The wound was cleansed and probed by a competent surgeon who decided that there was no foreign body present. The wound was closed and dressed and went on to uneventful recovery.

Soon after this, the patient began to have what he calls a bad catarrhal discharge from the nose. This discharge also would drop into his throat from the nasopharynx. At times it would have a bad odor. Six weeks ago the old wound under the left eye broke open and has been discharging foul pus freely ever since.

For years the patient has had double vision. The double vision used to be vertical; now it is horizontal and is worse lately.

Present condition: The patient, a well nourished man about forty years of age, has a large scar on the left side of the face. This scar is angular in shape, extending horizontally across the face, below the left eye to the nose and down alongside of the nose something over one-half its length. At the site of this old scar, below the left eye, there is a small sinus from which foul pus is issuing. His vision in the right eye is 20-20. Vision in the left eye is 20-70. Tension normal. Ophthalmoscopical examination reveals a congested condition of retinal veins. The appearance of the nerve head simulates optic neuritis. The general appearance is that of pressure upon the optic nerve.

A probe inserted into the opening in the face passes readily downward apparently into antrum of Highmore.

On close questioning, the patient states that he has not noticed any of the discharge into the nose and throat since the discharge began coming from the opening in the face below the left eye. Questioned closely, the patient states that no foreign body was removed from the wound in the face at the time of the injury. He also states that

*Read at Eleventh Councilor District Meeting held at Big Rapids, May 4, 1909.

every part of the exploded rifle was found, excepting the ejector pin.

Patient was advised that operative measures were indicated and that in all probability the ejector pin was lodged at some point beneath this old scar.

The patient, under general anæsthesia, was operated upon at Hackley Hospital, July 14th, Dr. Olson assisting. I entered the left maxillary antrum from within the mouth through the canine fossa. The anterior wall of the antrum was freely removed. Far back in the antrum, high up, and embedded in the posterior wall was found a foreign body. The tissues around about this were black. Upon cleaning away the debris the foreign body was found to be a piece of metal. I at once remarked to Dr. Olson, "There is the ejector pin." Seizing this piece of metal by strong forceps I began gentle traction. The steel was movable, but I was unable to remove it. Knowing the size of the ejector pin, I was astonished at this. I knew that I had sufficient opening to enable me to remove a much larger object than an ejector pin.

I enlarged the opening, removed more bone and soft tissue from about the foreign body and even then was unable to extract it. I noticed that when exerting traction upon the foreign body, the eye ball would protrude to the same extent as I was able to bring the foreign body forward. Suspecting that I had something more than an ejector pin to deal with, I made an incision through the old wound, beneath the eye and down the side of the nose. This flap was turned back from the bone and considerable necrosed bone was removed. Deep down in this opening I found a large metallic mass surrounded by blackened tissues. Some of the bone and connective tissue was black as ink. There was some odor to this, but not very much. Again seizing the foreign body, I was unable to extract it. I continued to remove the structures about the foreign body until, finally, traction brought away the foreign body, which proved to be a large piece of the steel frame which confines the lock and mechanism of the rifle.

The end of this piece of steel which was deepest embedded was ragged and corroded with rust. The upper edge of the distal end was curved upward and was behind the eye ball. It was necessary, in extracting the steel, to raise the proximal end and depress the distal end in order that it could be extracted without injuring the eye ball.

The floor of the orbit was gone and the soft tissues of the orbit rested upon the steel. This steel had penetrated so deep that the distal end was lodged in the sphenoid bone and had almost entered the cranial cavity. The piece of steel weighed exactly one ounce. The accompaning photographs are a little less than its actual size.

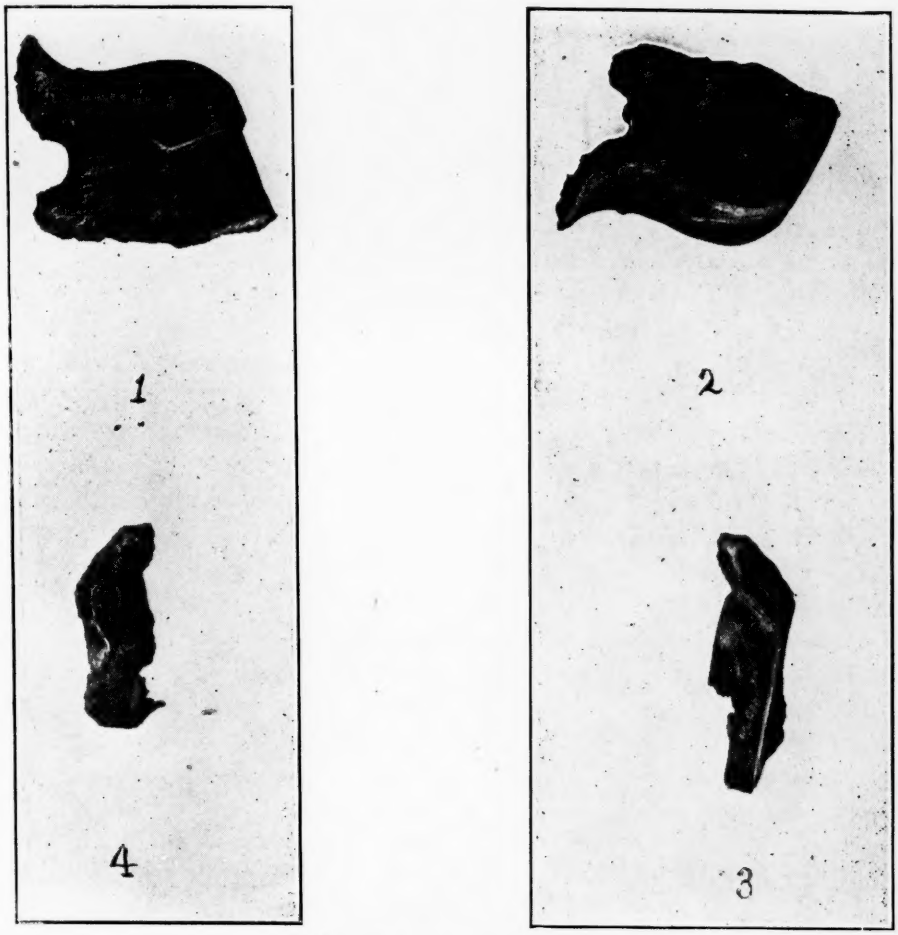
An opening was made into the nose to permit drainage of the cavity from which the foreign body had been removed. The antrum and cavity were packed with sterile gauze, saturated with compound tincture of benzoin, a piece of which was brought out at the external opening beneath the eye and at the opening through the canine fossa. The gauze was changed daily; plain sterile gauze being used after the first dressing, and the wound and cavity irrigated, for nine days. After that the wound was allowed to close; which it did very rapidly. Two weeks following the operation the wounds had entirely closed and the patient was practically well.

Nasal douches were continued for some time and brought away small quantities of discharge. At this date, nearly four months following the operation, there is no discharge into the nose or throat whatever. The wounds are all entirely closed.

The patient's vision is better. He has

no double vision whatever, except when looking downward as far as he can without throwing the head forward.

It would hardly seem possible that a foreign body of this size could be overlooked at the first dressing and that it could remain within the wound during all subsequent dressings until the wound healed and not be discovered. It seems scarcely possible that such a large foreign body could be carried in such a place for such a long time (10 years) without causing more trouble than was caused in this instance. This case also shows that the statement of a patient cannot always be relied upon regarding missing pieces of an exploding gun; or of any broken object which might cause foreign body in the eye or in any of the tissues of the body.




Foreign Body Removed from Orbit

## FOREIGN BODY OF THE EAR

(Removed by Giant Magnet)

As a further report of the removal of a metallic foreign body, I beg leave to report a case of a rather unusual foreign body in the ear.

Foreign bodies in the ear are usually removed without very much trouble and without very serious consequences. Ordinary foreign bodies, if small, may be floated out of the cavity by syringing with warm water. Or may be removed by the ring

curette, the foreign body ear hook or the foreign body ear forceps, preferably of alligator design.

It occasionally happens, however, that the foreign body may be of some smooth, hard substance and of such a size as to entirely fill the external auditory canal. In such an instance the attempt to grasp the foreign body by means of the forceps usually tends to push the foreign body further into the canal and if in so doing the foreign body passes beyond the isthmus of the canal it becomes practically impossible to remove it without separating the cartilage of the auditory canal from the mastoid bone and enlarging the bony canal sufficiently to permit of the withdrawal of the foreign body through this opening.

The case which I wish to report was one something on this order. The patient, Jerome S———, ten years of age, was playing in the school room with a number of boys. One of the boys threw a bicycle steel bearing ball across the room and it entered the right ear of the patient. This ball was about the size of a pea, very smooth and nicely filled the lumen of the canal. The child was put under chloroform and the ball resisted all efforts to remove it. The smooth surface would simply slide from the grasp of any instrument with which attempts were made to seize it.

The patient was referred to me. Six hours after the entrance of the foreign body, I found the external auditory canal bleeding and swollen to such an extent as to half close its lumen. At the end of the external auditory canal, crowded firmly against the drum membrane, was seen a round, shining, smooth, metallic object entirely filling the lumen of the canal.

I at once decided that no instrument could be used to grasp this foreign body to withdraw it. There was no room to place any instrument between the foreign body and the external auditory canal wall. The only hope of removing without operation lay in the giant magnet; and this, evidently, would have to be employed very soon as the wall of the external auditory canal was swelling at a rapid rate and the canal would soon be closed.

Several trials were made with the large tips of the giant magnet. When these were approached up into the canal towards the foreign body the magnet would immediately exert the pulling force upon the foreign body. This caused considerable pain and the boy would jerk away from the magnet.

I felt very certain that if the magnet tip could once come in actual contact with the steel body it would cling to it strongly enough to draw the foreign body through the narrowed outer canal. Accordingly the long, slender, partially curved tip of the magnet was used. This was attached to the magnet and placed well up in the external auditory canal without the energizing current being turned on to the magnet, this being controlled by the foot rheostat.

When I had placed the magnet tip well up into the canal and the boy was again showing signs of jerking away from it, I threw on the whole force of the energizing current by means of the foot rheostat. The steel ball immediately became attached to the tip of the magnet and the boy by his effort to get away withdrew the foreign body attached to the tip of the magnet. This caused him considerable pain for the few seconds while he was pulling his head away from the magnet.

This is the first instance I have known of the giant magnet being used for the removal of a foreign body from the ear and I have considered it worth reporting at this meeting. It is well to have the use of a giant magnet in mind as a method of removal before resorting to operation in cases where a steel foreign body has entered the external auditory canal.

# THE TREATMENT OF ACUTE NEPHRITIS*

By EUGENE BOISE, M. D.

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Acute nephritis terminates in one of three ways—recovery, death or chronicity. If in recovery, it is by the combined action of three agencies. First, checking the supply of toxins. Second, destroying them or lessening their virulence, and third, elimination. If it terminates in death, it is by reason of uræmia, anuria or "heart failure." If it becomes chronic, it is because the toxins have become less virulent, but have still continued their attacks till the kidney tissue has become permanently injured.

The indications therefore are, *first*, to prevent death, and *second*, to prevent subsidence into chronicity.

Before this, however, comes the question of prophylaxis. A question which is somewhat vague and uncertain because of the vagueness and uncertainty as to the etiology of acute nephritis. But this question becomes imperative under conditions that we have grown to recognize as especially liable to be followed or accompanied by nephritis. Therefore, how and when shall we institute measures looking toward the prevention of acute nephritis? Let us take the two conditions which are so frequently followed by nephritis as to cause us to be always apprehensive—scarlet fever and pregnancy. Scarlet fever is, of all the infectious diseases, the one most prone to be followed by nephritis, and we have reason to believe that this nephritis is not due to the direct action of the scarlet fever poisons on the kidneys, because the nephritis almost invariably comes comparatively late in the disease—not when the disease is at its height and most intense, but often when all acute symptoms have passed away. Neither does it follow the most severe types of the disease much more frequently than the milder. The nephritis of scarlet fever is caused by poisons formed within the body by the action of the toxins of scarlet fever. What those poisons are, we do not know, nor do we know their nature, but we know that by some means, during their elimination through the kidneys, they cause injury to those organs.

So also during pregnancy we often see evidence of a nephritis which may be comparatively manageable or may cause speedy death. These toxins are also endogenous, and cause the inflammation of the kidneys during the process of their elimination through that organ.

How then shall we prevent this injury to the kidneys?

We know that the blood is always loaded with products of metabolism which are irritant to the kidneys, but which are so changed and neutralized by the liver and other protective agencies, as to be entirely innocuous. We also know that there are special toxins produced in some manner by the action of the scarlet fever poisons, which probably have a special affinity for, or malignancy toward, the kidneys. All these irritant, poisonous substances must be eliminated. The blood is loaded to repletion with them and the kidneys are taxed to their utmost. What, then, are the indications? What are our duties?

*Read at the Annual Meeting of the Eleventh District Medical Society at Greenville, Mich., May 17, 1910.

Let me give you the outlines of a recent case. A child four years old had a moderately severe attack of scarlet fever, with an intense rash. The urine was rather scanty and high colored. In accordance with my almost invariable custom, she was given, every three hours, eight or ten drops of sweet spirits of nitre, as being the mildest diuretic obtainable. Explicit directions were given to keep the bowels quite free and to give water freely but not excessively. The parents were early cautioned to call me at once if fever or nausea should occur. Everything progressed nicely for more than two weeks. One night, about 3 a. m., I was called to the telephone and told that the child was vomiting and had a fever. I was told that she had been quite constipated for two or three days and that the urine was scanty. I immediately took measures to secure free catharsis, stopped *all* food and increased the dose of nitre slightly. The next day the child was a little better. The kidneys secreted only about two ounces of high colored urine in twenty hours, but it was not albuminous. No other treatment was given (except absolute rest in bed) and the kidneys soon began secreting urine, at first moderately, then quite normally.

Now what happened in this case?

The blood, already loaded with various toxins, was overburdened with additional deleterious substances by reason of the constipation. This additional irritation was enough to stop the secretion of urine, possibly by causing spasm of the smaller arterioles of the kidneys. Free catharsis, with total abstention from food, eliminated the toxins sufficiently to allow relaxation of the arterioles and resumption of function by the glomeruli, before damage had been done to the epithelium of the tubules.

The indications then are, in all cases of threatened nephritis,

1st. To avoid additional burdens to the already overburdened circulation, and

2nd. To encourage and promote as free elimination as possible, but with extreme care.

For instance, every case of scarlet fever, however mild, must from the first be restricted to almost liquid diet (with possibly fruit juices and some vegetables) to avoid additional noxious substances in the blood. Inasmuch as the elimination power of the skin is greatly impaired by reason of the dermatitis, more than ordinary attention must be paid to the bowels. They must be kept more than ordinarily free, but without excessive catharsis. Carry off all the deleterious substances possible through the bowels, and encourage the patient to drink freely of water, to more than supply the waste. And finally the kidneys may be stimulated in the most delicate and least irritant manner possible, yet in such a way as to increase the quantity of water excreted, flushing the tubules and washing away the solids excreted by them, thus preventing injury to the kidneys.

In no disease, perhaps, is prophylaxis more important or more valuable, if carried out with a clear idea of the functions of the different parts of the kidneys and the specific action of remedies.

I have said that the poisons which cause the nephritis of scarlet fever, are probably not the poisons of scarlet fever, but are manufactured within the body by these poisons and have a specific tendency to or predilection for the kidneys. This view is growing in favor and would seem plausible when you remember that the nephritis of scarlet fever is almost always glomerular in character, while the nephritis caused by the subcutaneous injection of uranium nitrate, for instance, is almost invariably interstitial.

Also diuretic drugs have their affinities

for different parts of the secretory tissues of the kidneys, some increasing the watery portion of the urine, others the solids. Therefore, it is not only possible but may be probable, that further research will enable us to differentiate the character of the pathological processes by the known causes, and this more definite knowledge may lead to more definite therapy.

But if our efforts at prophylaxis have failed, we are brought face to face with an acute nephritis. How shall we treat it?

The conditions that at once attract our attention are vascular hypertension, edema, scanty urine, albumen and casts.

At once the question arises, What causes the hypertension, the edema, the albuminuria, etc.? They are all pathological processes, but are, after all, only symptoms, and if treated at all must be treated as such, and, generally, only when they cause danger or discomfort. The rational treatment is the treatment of the pathological processes or conditions which cause these symptoms.

The cause of vascular hypertension we do not know. Various theories have been advanced and rejected, but, in my opinion, it will ultimately be accepted that it is due to an increased amount of adrenalin in the blood, and that this increased secretion of adrenalin is due to reflex irritation of the secretory nerves of the glands, by the inflammatory processes in the kidneys. Shall we treat it? Generally speaking *no*, because the danger of induced arterio-sclerosis, which is so vital in chronic interstitial nephritis, is slight in acute nephritis. Janeway says that "the height of blood pressure gives no indication for treatment except along preventive lines;" that, "hypertension is no more to be treated than a cardiac murmur"; and that "the treatment should be directed according to the presence of symptoms pointing to the inadequate maintenance of the circulation, or to the sudden occurring of dangerous complications."

Attention should be paid to the blood pressure, not as being in itself a condition to be treated, but as possibly giving information as to the underlying pathological conditions.

Edema is a symptom generally constant in acute nephritis, and is generally the one symptom on which the patient places the greatest emphasis as being the index of the success or failure of treatment. And yet it merits no attention except as it causes discomfort by over-distension or danger by encroaching on the abdominal cavity or the lung tissue. It ordinarily calls for no attention, yet it is of interest as being another index pointing to the theory that nephritis is caused by toxins having a special predilection for the kidneys.

There are two conditions necessary to the occurrence of nephritic edema, hydræmia and injury to the epithelium of the capillaries. This injury to the capillary epithelium is caused by the toxins that cause the nephritis—at least that is the generally accepted theory. And though we have infinite toxæmias, it is only the toxæmia of nephritis that will cause these certain conditions leading to edema. Thus, while it has not been demonstrated, it may be said to be plausible that through the scarlatinal toxins other poisons are elaborated that have a special predilection for the epithelium of the kidneys, both glomeruli and tubules, and for the capillary epithelium. What the cause of the hydræmia is, has not been determined. Various theories have been advanced and rejected, but it has become pretty generally accepted that it is due to the retention of salt in the blood and tissues, and that it is best treated by withholding salt. As Vaughan says: "Any excess of salt over that needed in metabolism, is irritant to

the kidneys, therefore when the kidneys are diseased withholding salt helps them."

What then are the indications for treatment in an established acute nephritis?

1st. To prevent uræmia.

2nd. To prevent anuria; and

3rd. To prevent heart failure.

First then, what is uræmia? Nobody seems to know.

Wells defines it as "An autointoxication which affects mainly the nervous system and occurs in connection with renal insufficiency. It is due to retention in the blood, tissue, lymph and cells of the body of certain indeterminate but specific products of perverted or normal tissue metabolism, which are not excreted by the inadequate kidneys, or are not taken up by the lymphatic radicles, or are not neutralized or destroyed by the lymphatic glands or other protective organs."

Vaughan says: "In uræmia the poison results from a radical change in metabolism, and the active agent produced is not one of the normal constituents of the urine."

Crofton argues that we must look to the liver rather than the kidneys for the cause of uræmia. He says: "The clinical evidence, and what may be called the pathogenetic evidence in favor of the hepatic origin of many cases of uræmia, is, in my judgment, very strong and convincing."

Krehl, in a rather full discussion of the nature of uræmia, says: "Not infrequently during the course of renal disease, a group of symptoms develops which seems to be caused by some sort of intoxication. This is called uræmia, and it presents the most varied clinical picture. The patient may become stupid or comatose, or, on the other hand, extremely irritable. He may have local or general convulsions, or he may suffer from paralysis of various parts of his body. Sometimes he becomes blind without there being present any objective lesion in the eyes. The heart's action is at first slow and irregular but later becomes very rapid. The respirations become deeper or assume the Cheyne-Strokes type.

Again, "Beyond doubt the symptoms of uræmia are caused by some sort of intoxication, and our first supposition would naturally be that this intoxication is due to the retention of substances in the body that should normally be excreted by the kidneys. Yet a number of facts speak against this view. In the first place, an absolute anuria may persist for days without producing uræmic symptoms, and furthermore, even though death results from suppression of urine, the associated symptoms do not precisely coincide with those of uræmia. Patients with anuria seem to pass gradually into a coma without any irritative cerebral symptoms, and the uræmic rise in the blood pressure, the slow pulse and the characteristic convulsions are all absent. We may say, therefore, that no well defined substance is known which will produce uræmia by its retention in the body."

He also says: "It is quite possible that in nephritis toxic substances are formed in abnormally large quantities, and that they are not eliminated properly by the kidney.

"Finally," he says, "there exists the possibility that uræmia is due, not merely to a failure on the part of the kidneys to eliminate poisonous substances from the body, but to pathological alteration in some of its (the kidney's) metabolic functions."

What bearing does all this have on treatment?

During nephritis (and only during nephritis) certain noxious substances are formed in the body. They are not due to failure on the part of the kidneys to remove from the body substances normal to the urine,

but they are due (probably) to faulty tissue metabolism, and possibly to faulty metabolism of the kidney tissue itself.

Therefore there are two indications:

*First.* To eliminate through channels other than the kidney all of these noxious substances possible, and

*Second.* To restore the kidneys to the normal, if possible, so that thereby the faulty kidney metabolism (if such exists) may be corrected.

Elimination must be sought through the skin and bowels. Through the skin by diaphoresis obtained by external stimulation. The use of pilocarpine in uræmia has been generally discarded because of the excessive bronchial secretion thereby induced, which may lead to pulmonary embarrassment. Elimination through the bowels must be sought by agencies that will cause copious watery stools, such as the salines, elaterium, etc. Elaterium is to be preferred because the salines might act as irritants to the kidneys. But in proper cases the agent to be relied on above all others as an eliminant, is venesection followed by transfusion or the infusion of normal salt solution.

The normal tendency of diseased tissue is toward recovery; therefore give the kidneys as much rest as possible, using only those diuretics that stimulate the secretion of the watery part of the urine, remembering that the careless use of diuretic agents may be more injurious than helpful.

In anuria the conditions are different. There may be absolute suppression of urine for days without causing uræmic symptoms. Inasmuch as the results of anuria are due to retention in the body of substances normal to the urine, the indication is to restore the kidney functions as early and fully as possible. How this shall be done is the great problem in anuria.

The amount of urine secreted normally depends on the amount of blood flowing through the kidneys, and upon the rapidity of the flow. The toxins that cause the nephritis cause the suppression of urine. They do this by impairing the secretory power of the epithelium of the glomeruli and tubules, and by causing contraction of the arterioles. By this the amount of blood is lessened and also the rapidity of its flow. If the suppression persists the epithelium of the glomeruli and tubules is irreparably injured, the blood becomes increasingly loaded with substances which should be eliminated through and by the kidneys; coma supervenes and death speedily follows.

But early in the disease, when the urine is becoming scanty, high colored and heavy, treatment may be of benefit. The functions of the kidney may be restored and death may be averted.

But how? Not by giving large amounts of water, because, as Van Noorden says, "The kidney of anuria is as unable to secret water as anything else and to such a kidney water is as irritant as urea."

But since the condition of the kidneys is caused (presumably) by toxins, it is imperative that they shall be eliminated as rapidly and completely as possible, and this elimination must, of course, be sought through the skin and bowels. In anuria, where there is such intense congestion of the kidneys, the use of pilocarpine may be advisable, inasmuch as over and above its diaphoretic action we hope for a relaxation of the contracted arterioles of the kidneys, a relief of venous stasis, and a resumption of function by the kidneys. Following the efforts at elimination the very mildest watery diuretics may be given. Stimulant or irritant diuretics are to be avoided. Hot fomentations to the kidneys, persistently applied, may do good.

I am of the opinion that when the anuria is obstinate, and the patient is sinking into a condition of coma in spite of all our efforts, we should resort to rather extensive decapsulation of one or both kidneys, hoping or expecting by this procedure to relieve the local tension, to remove the pressure on the arterioles and veins and to reestablish the circulation of the blood, thus enabling the glomeruli and the tubules to resume their functions.

Venesection is not to be forgotten, because it may be of value not only as a measure of elimination but as an equalizer of the circulation.

A number of investigators have been using "renal extracts" in nephritis, on the assumption that there is an "internal secretion" that may be of benefit in these conditions. A number of very favorable reports have been made. Some claim that freshly macerated kidney substance, administered by the mouth, will very favorably influence nephritis—that new glomeruli and new tubules are formed and the kidney tissue becomes regenerated.

It may be that along this line of investigation valuable therapeutic measures may be evolved.

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## ACUTE, SUBACUTE, AND CHRONIC INFECTION OF THE KIDNEYS AND OF OTHER ORGANS BY THE COLON BACILLUS.

W. Hanna Thompson of New York says that the sudden onset of kidney symptoms with early cerebral phenomena, soon passing into coma, with rapid rise of temperature, and uncontrollable vomiting, are almost pathognomonic of the infection of the kidneys with the colon bacillus. Ordinary examination of the urine shows albumin and casts, and would indicate nephritis, but a special examination for the colon bacillus will show the urine to be loaded down with the germs. It is not uncommon in typhoid fever. It occurs by way of the blood in any lesion of the intestines in which there is ulceration, allowing the bacillus to pass out of the bowel into the circulation. The author gives interesting examples of this disease infection. The kidney troubles of scarlatina and diphtheria may be due to this infection rather than to the toxemia of the disease. No visible lesion of the intestinal walls is absolutely necessary to its transmission to other internal organs.—*Medical Record*, May 28, 1910.

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## SURGICAL SUGGESTIONS

If there is reason to believe that one is dealing with a subacromial bursitis, the presence of great tenderness on pressure over the humerus in the axilla should not be interpreted to gainsay the diagnosis—although such tenderness has not been described.—*American Journal of Surgery.*

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If one fails to quiet a frightened, crying child sufficiently to determine the presence of a tender area, necessary to diagnosis, the administration of chloroform to the point of *primary* anæsthesia will make the examination easy and, at this stage of narcosis, pressure on a tender spot will be answered by reflex movements.—*American Journal of Surgery.*

# A PLEA FOR BETTER ATTENTION TO THE NEW BORN BABY*

I. L. POLOZKER, M. D.
Detroit, Michigan

There is a wave passing over the world against tuberculosis. There is a great deal of discussion through the country about our schools. The school curriculum, the school building, the school-hygiene and sanitation and the kindergarten are coming in for criticism, even the pupil himself has been attacked. His physical ailments are looked over, his mental condition is ascertained and a good many school boards and communities have already come to the sane division of school children according to their mentality. Separate buildings are being maintained for teaching backward children. We are doing all we can to raise healthier children so that they will grow up to be better men and women both physically and mentally. But what is being done about giving them a good start at birth? Of saving a good many newborns that die from pure neglect on the part of the physician, nurse or parents? A building is not sound without a good foundation.

What does the average doctor in a case of obstetrics do for the baby? Nothing. As soon as the baby is born, he cuts the cord as quickly as he can and turns it over to the nurse or anybody in the house with very little or no instructions. He stays by the mother who in a normal case does not require his attention and would often be better off if the doctor got away from her to give the placenta a chance to be delivered. But no, he stays at her bedside and makes frequent examinations, while the ignorant nurse puts the youngster into boiling water, rubs it with dirty oil, or covers the baby up so closely as to asphyxiate it completely or partially so that it gets a poor start in life or remains crippled. At a recent meeting of the American Pediatric Society, Dr. A. W. Saunders of St. Louis, and Dr. Samuel S. Adams of Washington, both called attention to the danger to the newborn, of the ordinary gas-heaters used in rooms, and reported several cases of illness in children due to this cause. I will not here enumerate the numerous diseases of the newborn, with which you are all familiar, but I want to remind you of the necessity of their early diagnosis. With the advance made recently in all departments of medicine, with the new aids for diagnosis, as for instance the Wassermann reaction in syphilis which is being so simplified that it will be available for use to any practitioner in medicine,—just think how that applies to the pregnant mother. It will make possible an early diagnosis and we will know what to expect in the coming offspring accordingly. What we are now doing for the prevention of ophthalmia neonatorium, will be done for other diseases. With the advances made in surgery, how much can be done for cases of cerebral hemorrhage, and other congenital cerebral injuries, if a diagnosis is made early. Enough to call your attention to what Cushing, the father of cerebral surgery, has done already.

*Read at the Forty-fourth Annual Meeting of the Michigan State Medical Society, at Kalamazoo, Sept. 15-16, 1909.

One word about the hundreds of babies that die during delivery just by pure negligence on the part of the men who know little about modern obstetrics. Prompt delivery in complicated cases, as you all know, has more than once saved the baby's life, but it requires a skillful obstetrician to do it.

I have recently been told by a prominent neurologist of our city, whose wife has lost two children at birth, that he followed up the work of this obstetrician, who to his knowledge has lost two other babies at delivery among his friends, where it appeared to him that all these children could probably have been saved by prompt interference at the time of delivery. I have myself witnessed cases of protracted parturition where the child was born asphyxiated, and still the obstetrician stuck to the mother, where he was not needed, and did not go near the baby where he really was needed.

We are all glad to notice the crusade against ophthalmia neonatorium, and a great deal has been accomplished in this direction in saving babies' eyes. I would call it criminal if in a suspicious vaginal discharge of the mother, the attending physician did not pay attention to the babies' eyes at birth. Why eyes only? Why does this not apply to other things?

While writing this paper I put this question to a well-known obstetrician in Detroit, who said, "Well, Doctor, it is because the average man does not get enough pay for an obstetrical case to give it the proper time." He, however, agreed with me that this was a poor excuse. The doctor, and the doctor alone, is responsible for the low fee in obstetrics. No matter how low the fee is, do the work right or leave it alone.

Of course gentlemen, I know that none of these facts can apply to such a body of men in this section, but we all know the work done in obstetrics by the ordinary untrained man—get through with the case, never mind mother or baby. It is simply to remind you gentlemen and teachers in obstetrics to teach and impress the necessity of better attention for the baby, since the foundation of a good physique is laid in infancy, and in childhood, which if neglected cannot be rebuilt. The nation demands better work in the future. Save the babies and raise healthier men and women.

The greatest of all evils I have yet to mention is the laxity with which the obstetrician advises as to the nursing of the baby. In my own limited experience I can enumerate case after case where the weaning of the baby was due to the obstetrician. In some cases when called in early enough, where the secretions of the breasts were not entirely dried up, and by insisting upon the mother nursing her child, we have shown her that she had plenty of nurse. The cases where the mother cannot nurse her baby are very few, and it is needless to state that it is almost always better than artificial food. The causes of death from artificial feeding during the first year are very numerous. It is true, as Southworth says, "The most abused and neglected baby is the Nursing Baby." It is true that baby and mother have to be looked after and carefully instructed as to hygiene, diet and mode of life. There is a steady decrease in maternal nursing, and a larger number of infants are exposed to the dangers of artificial feeding. The medical profession has been partially aroused of late to the fact that women should be urged to nurse their infants, but every assistance must be extended to those women to make the continuation of lactation possible. In Vienna, many societies have been formed to aid mothers nurse their babies. The majority of mothers who have been unable

to nurse or have prematurely weaned their infants have been led to make this decision through ignorance or neglect of their trusted advisers.

Now what is the remedy? First teach the physician that a case of labor does not end with the delivery of the child; that the child as well as the mother needs attention; that it is absolutely necessary to make early diagnosis of the diseases of the newborn; that treatment only applied early can do good in these cases; that it is absolutely essential to the child's future that it should be nursed. A physician that will attend to all these conditions should get better compensation for obstetrical work. I believe that Southworth in his address to the Pediatric Section A. M. A., at its last session, hit the nail on the head when he said, "In Chicago in 1904, 80% of all births were reported by midwifes; in Buffalo, N. Y., 50% by midwifes; in New York City, 42% of all births by midwifes; in Detroit, in 1908, 21% by midwifes.

Eradicate the midwife and it will help some. But if we must have them, have them better trained and under control of proper laws.

Gas Office Bldg.

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# VASOSTOMY AND VASECTOMY IN ACUTE AND CHRONIC GONORRHEAL VESICULITIS AND EPIDIDYMITIS*

F. B. MARSHALL, M. D.

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The treatment of acute gonorrheal vesiculitis and epididymitis by means of heat or ice, and guiacol, nitrate of silver, belladonna Ung., support and complete rest in bed (with many variations) constitute the palliative treatment usually employed.

The end results in cases treated palliatively are usually good as regards the life of the patient and integrity of the testicle, but, for the epididymis it is far otherwise. We are as yet in no position to estimate the frequency with which permanent occlusion of the vas occurs. Benzler, as a result of examinations of soldiers of the German army, found 23% of sterility in unilateral epididymitis and 41% in bilateral. Many observers believe this percentage much below the mark. The subject has been distinctly a neglected one.

During the last few years attention has been attracted to the operative treatment of acute epididymitis, particularly by the

*Read at the Eleventh Councilor District Meeting, Greenville, Mich., May 17, 1910.

contributions of Belfield, Bazy and Hagner.

W. T. Belfield of Chicago, called attention to surgical treatment of pus tubes in the male, in the *Jour. A. M. A.*, April 22nd, 1905, and again in the same journal Dec. 25th, 1909.

These gentlemen have clearly shown that early incision and drainage of the inflamed epididymis and tunica vaginalis, promptly relieves pain, prevents the tendency to relapse, and leaves the epididymis functionating and apparently normal.

The technique is quite simple and in my experience a general anæsthetic has never been necessary. The local anæsthetic is inserted in skin and cord. The scrotum is prepared as for any surgical operation.

The operator grasps the scrotum with thumb and finger of left hand in such a way that the cord at its junction with the testicle is pushed against the side of the scrotum and the skin is stretched. With sharp pointed scissors in right hand a vertical incision 1½ inches or more in length is made through skin and fascia, and tunica vaginalis. Serous or sero-purulent fluid will escape, the red and swollen epididymis will project into the wound. A sharp pointed artery forceps may be pushed behind the vas and either end projected outside the skin, thus bringing the vas outside the scrotum.

The left hand is now released and the vas incised longitudinally, and a silk-worm gut passed into the seminal vesicle, through incision in vas, to determine whether there is a stricture of the vas. The silk-worm is withdrawn and pushed into the epididymis. The needle of a hypodermic syringe, charged with 20 drops of a 10% solution of potargol is introduced into the vas through the incision and directed upward until the shoulder of the needle meets the end of the incision.

A catgut ligature is tied lightly about the vas containing the needle and the medication forced into vas and vesicle, the greater part of which will remain in the vesicle. The upper portion of the epididymis is punctured in several places with a narrow bladed knife (as recommended by Hagner). Then the most dependent portion of the epididymis is incised. If no pus is found the wound is lightly packed with gauze and a support applied. Should pus be found in lower part of epididymis, drainage is best made through an additional skin incision directly below this point. Pain is relieved promptly; the swelling rapidly subsides; the wound heals rapidly; and the patient is not confined to the bed longer than two or three days, in some cases not at all.

In cases of chronic vesiculitis and epididymitis one or more strictures of the vas may be found. A stricture through which the silk-worm gut cannot be passed must be resected and the ends of the vas approximated by the method of Chas. Mayo (a silk worm thread is passed into the lumen and out through the wall of each cut end and the thread tied above the skin, the thread serving as an axis splint which secures exact position of the cut ends of the vas).

The very intricate anatomical relation between vas, vesicle, ureter and bladder accounts for many bladder and ureteral symptoms directly traceable to *vesiculitis*.

Seminal retention without infection may produce irritable bladder. Of nine chronic and twelve acute cases operated by the author *all* made prompt and uneventful recoveries.

This method of treatment insures against recurrence and sterility, shortens the convalescence by more than one-half the time; and, in my judgment, should be employed in acute cases that do not yield to palliative treatment in eighteen hours, and in all chronic cases.

# SERO DIAGNOSIS OF SYPHILIS AND ITS CLINICAL VALUE*

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The recent demonstration of substances in blood sera in certain diseases leads us to accept the presence of such substances as positive indicators of disease due to a specific cause. Positive reactions to the Widal test, Tuberculin, or the Wassermann test are in their specific application very important links of diagnostic evidence in the chain of manifestations of their respective diseases. These tests and others of a laboratory nature today comprise the source of the best scientific evidence to obtain a correct diagnosis, especially in doubtful cases.

Among these confirmatory diagnostic agents, the Wassermann test, when applied to cases of suspected or doubtful syphilitic origin, is without question one of the most important. This test gives a positive reaction in from 90% to 95% of untreated secondary syphilis, about 50% in tertiary syphilis, and a very much smaller percentage in latent syphilis. The reaction therefore, when most needed as a diagnostic means is shown in about 50% of positive syphilitics. With the thousands of cases that have been carefully subjected to this test, no reaction has been obtained in the non-syphilitic, with but few exceptions, such as sleeping-sickness, yaws, leprosy and scarlet fever. These exceptions do not decrease the value of the test, because of the ability to easily exclude clinically the diseases mentioned.

The time has come when we, as physicians, must become familiar with the substances in the blood, that enter into different reactions which are being commonly employed in this and other reactions, for they are essential in the great field of modern medicine dealing with the process of immunization.

The Wassermann test, which we will briefly outline, depends upon two systems, a bacteriolytic and a hemolytic. These two systems are necessary to measure and observe the phenomena,—fixation and deviation of complement. The (*a*) or bacteriolytic system consists of three factors, namely: (1) Antibody (patient's serum); (2) Antigen (syph. ext.); (3) complement (G. pig serum). The (*b*) Hemolytic system in turn consists of three factors, namely: (5) Antibody (hemolytic anti-sheep rabbit serum); (4) Antigen (sheep's corpuscles), and (3) complement (G. pig serum) which is common to both.

1st. The patient's blood is drawn, the serum separated and heated at 56° C. ½ hr. The second factor or antigen is an alcoholic extract of liver from stillborn syphilitic infant. 3rd, or complement is the fresh, clear serum from a normal guinea pig and is common to both systems. 4th, hemolytic antigen or sheep's blood corpuscles are obtained by drawing a quantity of sheep's blood into 1% sodium citrate in salt solution, centrifuging, decanting, taking up the salt solution, centrifuging, and again taking up in salt solution and centrifuging. The thoroughly washed corpuscles are then diluted in salt solution 1.100. 5th factor, or hemolytic antibody, is secured from the blood of rabbit which has been immunized to sheep's red blood corpuscles by five injections at intervals of four to six days, and then inactivated by heating at 56° C. ½ hr.

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The factors of the Hemolytic system are first standardized by determining the amount of complement (3) necessary to reactivate one unit of antibody (5) *sufficiently* to liberate the hemoglobin from one unit of antigen (4) in ten minutes at room temperature.

The antigen in the Bacteriolytic system is in turn standardized to the units used in the hemolytic system by using sera from a known positive syphilitic and a known normal.

Having now the material for making the test, we are ready to put the five reagents together. One drop of the suspected serum of the patient, one unit of complement and one unit of antigen are placed in one tube. Another tube containing one drop of positive syphilitic serum, and also one containing one drop of a known non-syphilitic serum with units of the other two reagents in each, are placed together. By so doing, the patient's serum is controlled by a positive, and a negative control serum. No reaction that is not so controlled can be trusted for accuracy. These sets are placed in an incubator for 20 minutes, after which time, one unit of each of sheep's corpuscles and hemolytic serum are added to all of the tubes,which are then allowed to stand at room temperature 10 minutes. If an antibody be present, the complement will be fixed, so that when the red blood corpuscles and the hemolytic serum are added, there is no complement to unite with the corpuscles and the serum, therefore, no hemolysis takes place. If no antibody is present, the complement is not fixed, and is therefore free to react with the hemolytic serum of the rabbit and the corpuscles of the sheep,—and hemolysis takes place, a checkoff on the test being observed in the positive and negative controls.

After considering the substances which enter into the Wassermann reaction, the manner in which they are obtained, the standardization of each and the constant deterioration of many of these reagents, one is readily convinced that the test is most difficult. It requires a skilled technician, who is versed in blood work, and a well equipped laboratory. Months are required to become skilled in each step of the test. The guinea pig serum containing the complement must be fresh, which means every twenty-four hours; the hemolytic serum obtained from the immunized rabbit can be depended upon for an indefinite period only if kept in an ice chest. The red blood corpuscles of the sheep begin to disintegrate and are useless in three days. It is therefore a most extraordinarily complicated procedure—and expensive, due to the as yet unavoidably unstable ingredients.

The original Wassermann reaction, with a number of recommended modifications, while laborious and complicated, is reliable as a general diagnostic measure, but untortunately its application is at present limited to the larger medical centers.

Many investigators have sought to simplify Wassermann's method, so that it can be generally applied, and while we have as yet none that will stand the test for accuracy, we have reason to believe that practical simplifications will be perfected in the near future.

The serum of the syphilitic contains, according to experiments of many investigators, an excess of globulins as compared with normal sera, and those of most other diseases. This fact has led many to attempt to precipitate these globulins by various chemical means so as to be of diagnostic value, either in quality or quantity of the precipitants formed. Those who have exhaustively compared the precipitation reaction, with the fixation of complement reaction are of the opinion that while one may become skilled through the extensive use of the precipitation test it is impracticable for general use in the hands of the physician who seldom needs to employ it.

The precipitation reaction while simple is very delicate, and cannot be considered as reliable in the doubtful case, where an accurate test is most needed.

The author has tested more than 400 bloods with several reagents recommended by various workers in the precipitation test, and with a soluble bile salt previously reported by him; this reagent, Taurine, is proved to be the most accurate. It is a white, crystalline, soluble bile salt and when used in different dilutions precipitates the globulins in larger quantities, in shorter time, and results in a precipitate of a different character from any other substance as yet employed. The sera examined by this test were numbered, with no knowledge of whether the blood was or was not syphilitic, and the reaction verified by the history of infection, or most often by actual, objective clinical symptoms of syphilis.

The author's experience with Taurine leads him to think that it is a simple means of strengthening the diagnostic evidence in doubtful, clinically manifested cases. In summing up the reports of 150 skilled laboratory workers on the Taurine reaction, the evidence is that the casual worker's interpretation of the precipitate is not accurate or definite enough to be relied upon.

The precipitation reaction in syphilitic blood has been demonstrated by Noguchi, Neubauer, Solman, Porges, Elias, and others. Noguchi precipitates the globulins in the spinal fluid of the syphilitic with butyric acid. If the serum, so tested, is normal, there is slight, if any, opalescence, but if syphilitic, a prompt cloudiness appears, and it soon becomes flocculent The results reported by Noguchi have compared well in accuracy with those of the original Wassermann, and his reports have been confirmed by Fox, De Santos-Saxe, and others. This test, while far more simple than the Wassermann, presents some objections, viz., that of obtaining the serum from the spinal canal, and also, the very disagreeable odor of butyric, making it impracticable for office work.

Still another type of reaction dependent upon the increase in globulin content is a color test reported by Schurman. We were unable to confirm his findings, but feel that such a test has promising possibilities. The author has done some preliminary work with several color reagents singly and in combinations, but as yet without success.

At present, the serum diagnosis of syphilis cannot be considered perfected; yet much disputed diagnostic evidence is now considered reliable. Its assistance is of inestimable value in differential diagnosis of the obscure, latent syphilis, especially of the nervous system, where no history of positive clinical symptoms of the infection is known.

Early diagnosis means weeks of early treatment, and with vigorous early treatment the duration of the disease is materially shortened and the percentage of cures is accordingly larger. If the Wassermann reaction can be obtained at an early period of general, systemic infection, coupled with the finding of the specific organism, we have not only made great advancement in the early diagnosis of this disease but also in its control. This evidence can be considered only clinical and yet without definite proof. The most important value of the Wassermann reaction may not be that of diagnosis. If we can prove after continued negative reactions of a patient's serum, that the patient who has been afflicted with the disease is entirely free, the test will become of still greater value to patient and physician.

Only by carefully testing many sera for a long period of time can this be accomplished. Many investigators are now maintaining that a patient's serum giving a positive Wassermann reaction may become negative, after vigorous treatment with

mercury. They also maintain that a positive reaction means positive syphilis and further treatment. Much time must be spent on further study of syphilitic sera before the governing of our treatment by reaction can be accepted as absolute. Just how much power of resistance the average normal individual possesses against this infection at a certain age, and just what the effect of our specific treatment is upon the infection, or upon Nature's means of combating the infection, is yet a vast unknown field. Why some patients run such an apparently mild course, while with others the infection is most severe and destructive under the same conditions and treatment, can only be known when we are able to determine the value and cause of individual resistance to this specific infection.

If again we can be guided by the reaction, in our management and treatment of this disease, society and the coming generations will be inestimably benefitted. We can then advise our patient not only regarding the safety of marriage, but will be able to state whether he can have healthy children if we have a definite, practical means of knowing when he is cured. The only absolute proof we now possess of the surety of our patient being syphilis free, is that he may become re-infected. If all patients that show the reaction still have active syphilis, we are curing only a small percentage of our syphilitics. Yet, on the other hand, if our patient can be reinfected, we can consider syphilis curable.

In the latent stages of syphilis, the patient shows some proof of immunity. Lesser estimated the presence or absence of the reaction, tabulating them by years, since the patient became infected. The reaction was present in about this ratio: The first two years, it was found in over 70%; from the third to the thirteenth year about 50%; from the thirteenth to thirty-fifth year, 11%; and only rarely after the thirty-fifth year of infection. He also reports that in 86% of those giving a positive reaction, marked decrease in the number and extent of the positive reactions is so rendered by treatment. He maintains that the longer the infection has existed the more likely are relapses, and the more constant is the reaction positive. The earlier the treatment, the longer continued, the larger is the percentage of negative reaction that continue negative.

Citron concludes from work on a large series of cases as follows: First, the constant finding of the reaction indicates positive active syphilis; second, that poorly treated or untreated syphilitics show the reaction after many years; third, if the reaction is present, there is active syphilitic infection, and treatment should be continued.

Blaschko has also reported much in the systematic examination of the serum, before, and during various methods of treatment in the different stages of the disease. He believes, and maintains, that the treatment should be continued as long as a positive reaction is obtained, and that repeated testing of the serum after it has become negative is necessary. If the reaction reappears treatment should be given even in the absence of all other symptoms of the disease. In conclusion:

*First.* The Wassermann reaction when positive is now considered a specific diagnostic agent in syphilis.

*Second.* A single negative reaction does not always mean no syphilitic infection.

*Third.* With our present knowledge it is impossible to make any definite statements, in regard to the effect of various treatments on the reaction.

I wish to express my thanks to L. T. Clark, B. S., of the Research Laboratory of Parke, Davis & Co., for laboratory assistance.

Washington Arcade.

# HYDATIDIFORM MOLE*

GEORGE KAMPERMAN, M. D.
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Hydatidiform mole is a disease of the chorion. It is essentially a hydropic degeneration of the chorionic villi. The name Myxoma Chorii, by which it was known until fourteen years ago, shows the mistaken idea then held concerning its pathology, it being supposed that the condition was one of myxomatous degeneration of the chorionic villi.

The disease is known by various names: vesicular mole, hydatid cyst, uterine hydatids, cystic degeneration of the chorion, cystic mole, etc., all of these names being suggested by its gross appearance.

As early as the sixth century Ætius[1] gave a good description of hydatidiform mole, although its nature was not understood. The earlier observers considered the cysts to be similar to the hydatid cysts found in the other parts of the body. Some have considered the cysts to be mature ova, each vesicle representing an early pregnancy. This probably explains the unusual cases of multiple pregnancy mentioned by early writers; for example, in the case of the countess who gave birth to three hundred sixty-five embryos at a single labor, the condition probably was hydatidiform mole.

Velpeau in 1827 first recognized the seat of the disease to be in the chorion, and in 1858 Virchow advanced the idea that the condition was a myxomatous degeneration of the connective tissue of the villi. Marchand[2] in 1895 proved the seat of the trouble to be in the epithelial covering of the chorionic villi, rather than in the stroma. As no reaction for mucin could be obtained, he judged the condition to be edema. This view of Marchand is now the generally accepted view.

*Read before Michigan State Medical Society, September 15–16, 1909, at Kalamazoo.

## CASE REPORT

*Patient.*—She was a woman aged twenty-two years. Her history revealed that she had had scarlet fever at the age of eleven years, and that one year prior to the present trouble she had been treated for enlarged glands of the neck (probably tubercular). Aside from this her personal history was negative. Her menses began at the age of fourteen, were of 28-day type, and regular and normal in amount and duration. She had a slight leucorrhea before and after each menstrual period. The patient is a primipara, and has been married eight months. Family history negative. Husband in good health.

*Present Pregnancy.*—Her last regular menstruation began January 10, 1909, and was normal in all respects. Up to this time she had menstruated regularly. She skipped her February period, and about March she began to notice a slight show of blood, which was not constant, and only enough to stain her clothing at times. From April 1st she flowed almost continuously until April 20. Then for two weeks she hardly noticed any show of blood. From then on she had an intermittent and irregular show of blood at various intervals up to the time she entered the hospital the last week in May. During these hemorrhages she noticed that there

was a black stringy substance in the discharge.

Almost from the beginning of her pregnancy she suffered from nausea. After about two weeks she began to vomit. This was almost continuous and at times she vomited everything she ate. She became very weak and lost some weight. It was finally necessary for her to go to bed because of the vomiting and the flow. The vomitus was very acid. It continued irregularly and more or less severe for fully a month.

Her bowels were regular. She complained of frequent urination at times.

Examination on April 10, just three months after her last menstruation, showed the uterus well up out of the pelvis, and the fundus reaching to a point about midway between the pubes and umbilicus. The uterus on a whole was rather hard than elastic, and was not of the same consistency throughout. On the right side it was harder than on the left. Examination of the urine was negative. The patient improved some and soon after left town.

At about 3 P. M., May 24, the writer was hastily summoned to the home of the patient. She had been doing fairly well up to that stage and was quite comfortable. While lying on the couch that afternoon she suddenly felt a trickle of blood from the vagina, and on walking from the couch to the bed a clot of blood about the size of an orange fell from the vagina. On lying down the flow ceased. As the patient was very nervous and shook all over, morphine gr. ¼ was given hypodermically, after which she was soon quiet. About two hours later a second hemorrhage started. The flow was fresh, no clots, and it was reported to be considerable in amount. The vagina was then packed with gauze and the patient brought to the University of Michigan Maternity Hospital. On arriving there the patient was in fairly good condition, and the pulse did not indicate that she had lost much blood, although the skin looked rather pale.

*Examination.*—The skin had a pale waxy color. The abdomen was distended by a symmetrical swelling reaching from the pubes to the costal borders, being about the size of an eight months pregnancy. The abdomen was rather hard and tense although it relaxed at intervals, when it felt soft and doughy. No fetus or fetal parts could be palpated, and no fetal heart could be detected. There was a uterine souffle in each flank. Vaginal examination showed the os to be practically undilated. No fetal head or presenting part could be palpated through the vagina. Because of the bleeding and also to dilate the os, the cervix was packed with a gauze tampon. In a short time pains began, and the os was soon dilated to about the size of a half-dollar. Vaginal examination now failed to reveal a fetus, and during the examination the characteristic grape-like masses were obtained from the os, confirming the suspicion that the condition was one of hydatidiform mole.

*Operation.*—By the use of a large dull curette, parts of the mole were curetted away. But it was found that by manipulating the uterus after the fashion of Crede's method of placental expression, most of the mole could be expelled. After expelling the mass the interior of the uterus was thoroughly scraped with a dull curette.

*Specimen.*—This consists of a mass of bladder-like cysts measuring 2500 cc. and weighing 2675 grams. The separate cysts measure from ½ cm. to 1 cm. in diameter and are pale and translucent. Portions of the cysts showing adherent and necrotic tissue and blood clots were selected for microscopical examination.

*Pathological Diagnosis.* — Hydatidiform mole.

*Subsequent History.*—The day following

the delivery the patient's face became puffy and there was considerable edema of the ankles. Examination of the urine showed a small amount of albumen and the sediment contained an enormous number of casts—hyaline, granular, and cellular. In two days, however the urine cleared up entirely.

On the third day there was an abrupt rise in temperature, the temperature ranging from 102 to 104 degrees, with a pulse from 120 to 148. As there was hardly any lochia and retention was suspected the uterine cavity was irrigated with warm normal salt solution, and after a few days the temperature dropped and remained normal, the rest of the convalescence being uneventful.

*Final Examination.*—Twelve days after the delivery the fundus was about three finger-breadths above the pubes. The fundus was forward, movable, but rather excessively tender. On the left side was a mass about the size of a lemon which seemed independent of the uterus, slightly tender, so that it could not be outlined distinctly but could be moved without moving the uterus. The patient is to report later for examination.

*Subsequent History and Examination.* 9-14-'09.—The patient had considerable abdominal and pelvic tenderness and soreness for about six weeks after leaving the hospital. This was treated by hot vaginal douches twice a day. For the last two months she has been feeling well, and at present is a picture of health, and has gained a great deal of weight. She menstruated first six weeks after the removal of the mole, and has had three menstrual periods in all. These were fairly normal.

Palpation shows no abdominal tenderness. The uterus is far back in the pelvis, is normal in size, freely movable, and not tender. Left appendages are negative. Right ovary is cystic and enlarged to about three or four times normal size. There is as yet no evidence of malignancy. The patient is to be closely observed, and will report any abnormality.

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Hydatidiform mole is a rather rare disease. Statistics show that it occurs probably about once in 15,000 pregnancies. Its rarity as well as its gravity make it extremely interesting. Each case brings up many questions that are well worth considering.

### ETIOLOGY

The condition may occur at and between the extremes of child bearing life. The extreme ages of reported cases are thirteen and fifty-eight years. The greatest number occur between twenty and thirty years of age, and the average age is twenty-seven years. It is about three times as common in multipara as in primipara.

Several views have been expressed concerning its etiology. The question as to whether the cause is maternal or fetal has supporters on each side, and each side has some evidence to support its views. The report of repeated moles in one woman with different husbands would tend to show some maternal influence. The reported cases of partial cystic degeneration of the chorion with a healthy fetus would seem to show that the fetus was not the cause. The fact that in so many cases of hydatidiform mole there is cystic disease of the ovaries[7] has led some to infer that this maternal condition has some causative bearing; while others look on this same coincidence as an argument in favor of the fetal source of the disease, a cystic ovary being supposed to produce diseased ova.

Virchow and Veit consider that a diseased endometrium is the cause of the cystic degeneration of the villi. The findings in the endometrium are very inconstant, and no definite pathological

lesion has been demonstrated. Endometritis is so very common and hydatidiform mole is so rare that it hardly is plausible that there can be any causative relation between the two. It is more likely that the changes found in the endometrium are secondary to the chorionic changes. Hydatidiform mole has also been found in a case of tubal pregnancy, the mole being in the tube. If we consider the endometrium as the cause we can hardly explain those cases of twin pregnancy where one ovum has been converted into a mole, while the other has developed into a healthy fetus. Any deleterious influence of the endometrium would have very likely a similar effect on the other ovum.

In many reported cases it is stated that the hydatidiform mole is accompanied by cystic disease of the ovaries. It is generally stated that cystic ovaries are associated very frequently with this disease. Yet Findley in a careful study of 210 cases could find only eight cases where the presence of cystic ovaries was proved beyond doubt. Cystic ovaries are also so very common that it would seem that if this lesion was the cause of hydatidiform mole, these moles would be much more common. Williams had a case where a hydatid mole was accompanied by cystic ovaries, and yet this same patient had had a previous pregnancy and the cystic tumors were then so large that they caused serious dystocia. If the cystic tumors were the cause of the mole, why was not there a mole during the first pregnancy? No doubt in most of these cases the cystic ovaries are a mere coincidence. Marchand has found that these cysts sometimes contain lutein cells, and certain writers hold that these stand in causative relation to the mole.

Death of the fetus has also been considered as a factor in etiology. The nourishment which normally goes to the fetus is supposed to cause an overgrowth of other parts. However, in cases of missed abortion and resulting death of the fetus we do not in many cases get a hydatidiform mole.

Moles may occur prior to the formation of the placenta, at a time when there would not be a close anatomical relation between the mole and the uterine wall. This is considered to be evidence against the theory of maternal origin. Marchand considers that such moles are the result of primary disease of the ovum, but also admits that malnutrition may have much to do with the development of such moles.

Aichel[3] claims to have produced hydatidiform mole experimentally in dogs by destroying the nutrient vessels going to the chorion. His experiments have been criticized, and the proof of his claims has by no means as yet been accepted. At present we are not as yet in possession of the necessary knowledge to state as to what is the positive cause of these moles. There is yet room for much study and observation. Local disease of the uterus does not seem to have much bearing, and cystic ovaries seem a coincidence.

### PATHOLOGY

Macroscopically a hydatidiform mole is a mass of small bladder-like cysts. These cysts vary in size from a pin-head to a hickory nut. They are usually found in clusters which give the mole a grape-like appearance. The cysts are of a pale color, and contain a viscid fluid which gives no reaction for mucin. The disease is essentially a hydropic degeneration of the epithelium of the chorionic villi, each villus being distended and forming one of the grape-like masses. The degeneration of the stroma is secondary, and is in direct proportion to the size of the villus, there being very little change in the smaller villi. In the larger villi degeneration of

the stroma may be so complete that it fails utterly to take a stain.

An important feature in these moles is their liability to become malignant. Almost half of the cases of syncytioma malignum have followed the expulsion of a hydatid mole. The exact per cent of moles that become malignant is hard to estimate. The percentages are usually given too high, as it is especially those that become malignant that are reported. Of Findley's[4] 210 cases, 16 per cent became malignant. He considers this figure too high. Others have estimated 10 per cent of malignancy. The diagnosis between the benign and the malignant type is practically impossible. Cases diagnosed as malignant have recovered without recurrence, and supposed benign cases have later caused the death of the patient. The microscope does not help us much here. The fact that there is some infiltration of the uterine walls does not always mean malignancy. In most cases time alone will tell, and close observation of the patient is necessary. The fact that a given mole may be malignant without any macroscopical or microscopical evidence should make us look with suspicion on every mole. In fact, Van der Hoeven[5] considers all these moles to be malignant, and that all moles have a tendency to infiltrate the uterine muscle, but that some are expelled before the infiltration has begun and thus there is no recurrence; but if any part is left behind it will give rise to a syncytioma malignum. Hence, according to his view, recurrence would mean incomplete removal of the original mole.

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### SYMPTOMS AND DIAGNOSIS

The most important symptoms concern the size of the uterus and the bleeding. There is in all cases a rapid increase in the size of the uterus, all out of proportion to the stage of pregnancy. Even early the uterus is large, but the diagnosis is not easy then, as one can not always be positive as to the stage of gestation. The rate of growth is not uniform, the increase being usually much faster towards the end.

In many cases the tumor is not symmetrical. In the case reported in this paper the uterus reached a point midway between the pubes and the umbilicus at the end of three months' development. The growth then for a month was nothing unusual, but during the last two weeks it almost trebled in size, and at the end of 4½ months of pregnancy the abdomen was about the size of an eight months' pregnancy.

Hemorrhage is an early symptom and is what usually attracts the patient's attention. The hemorrhage follows a period of amenorrhea. In the case under discussion the hemorrhage began at about two months, and gradually became worse for a month, but then diminished again for a while. Shortly before the mole is expelled there is liable to be a severe hemorrhage, as in the case reported. In some cases the small cysts can be found in the discharge, but this is not very frequent. In this case the discharge was watched but none were observed.

The diagnosis depends on these symptoms and signs. The rapid increase of the size of the abdomen, with the enlargement being out of proportion for that stage of pregnancy, should excite our suspicion at once. Abdominal examination fails to reveal a fetus or fetal movements, and no fetal heart sounds can be heard. The abdomen is soft and boggy, and does not as a rule feel as elastic as in a normal pregnancy. Vaginal examination gives the same negative findings, there being no presenting part to palpate. If the os is partly dilated the vesicles can often be

obtained while making the examination, and the diagnosis thus established.

Because of the size of the uterus, the condition must be differentiated from hydramnios. Here the uterus is very elastic and cystic, and a ballotable fetus can usually be felt through the abdomen and per vaginum. There is usually absent the hemorrhage which is so characteristic of hydatidiform mole.

Because of the hemorrhage the condition must be differentiated from other diseases in which bleeding is a symptom. For instance, in a very early case, the hemorrhage following a period of amenorrhea may lead the attendant to suspect that the patient was being threatened with abortion. Or he might suspect an ectopic gestation, and if on vaginal examination he finds an enlarged uterus with a soft mass on one side of the uterus, it might be difficult to tell whether the soft mass was an enlarged and pregnant tube or a small ovarian cyst. After considering all the signs the patient presented, it might still be necessary for him to keep the patient under observation for a short time and make repeated examinations before an absolute diagnosis could be made.

The condition must be differentiated from placenta previa. The hemorrhage may be very suggestive, and as the placenta could hardly be palpated if it were there, the diagnosis could only be made by finding all the signs of a mole, and thus ruling out placenta previa.

Frankenthal[6] has called attention to the shape of the uterus as a diagnostic point. There is very often a disproportion between the longitudinal and the transverse dimensions of the uterus. With the fundus at the umbilicus the tumor may extend out laterally to the anterior superior spines. This is not present in all cases but is quite frequent. It is not found in the case reported in this paper.

Poten has called attention to the fact that there are often local contractions of the uterine muscle, which may give one the impression that there are interstitial fibroids present. In the case reported the right side of the uterus was considerably harder, and the question of tumor was considered.

The absolute diagnosis is often impossible. The characteristic vesicles are very rarely found except just before the moment of expulsion of the mole. In most cases the diagnosis is suspected, and confirmed by the finding of hydatid cysts.

### TREATMENT

The treatment is to empty the uterus a soon as the diagnosis is made. As the uterus is unusually soft, great care must be taken not to perforate it. A cervical tampon is usually efficient in dilating the cervix, after which in many cases the mole will be expelled spontaneously. In the case reported, after dilating the os, the mole could be expressed by manipulating the uterus after the manner of Crede's method of placental expression. After the mole is expelled the interior of the uterus should be carefully but thoroughly curetted with a large dull curette. Some writers have advised packing the uterus with gauze soaked in some corrosive substance. The value of this is doubtful, as it is a question whether a malignant mole would be destroyed by it.

Sapremia is very liable to follow, for even with the curette the whole of the tissue infiltrating the wall can not be reached. This often causes a sapremia later. Usually the patient has little resistance to fight an infection.

After recovery the patient should be carefully watched for recurrences. The subsequent clinical history is really the only guide as to whether or not there is any malignancy. Any persistent show

of blood should be an indication for a curettage, the tissue removed being examined with the microscope. One should regard with suspicion any nodular growths appearing in the vagina. The average time of apperance of syncytioma malignum is eight weeks after the mole has been expelled. But it may show up later, and the patient should be under observation for a long time. Some obstetricians make it a rule to curette all cases a few weeks after recovery. However, the diagnosis by the microscope even then is unsatisfactory, and in most cases the clinical picture must be relied on after all.

### PROGNOSIS

The prognosis should always be guarded. There are many complications which may arise; rupture of the uterus, fatal hemorrhage, sapremia and sepsis, these have given the disease a high mortality of 25 per cent. These patients have not the resistance of a normal patient, and our immediate prognosis should be guarded.

It is generally supposed that the condition is liable to recur in later pregnancies. Findley[4] has shown that this is not the rule. True, such cases do occur, but they seem to be the exception and not the rule.

The ultimate results are uncertain also. One must remember that we have no means of deciding as to whether a mole will become malignant or not. We should regard all cases as suspicious. Careful observation of each case may help us to discover a malignant case in time to save the patient.

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# A NEW GATEWAY—TO CERTAIN OPERATIVE PROCEDURES WITHIN THE ABDOMINAL CAVITY*

SCHUYLER COLFAX GRAVES, M. D.
Grand Rapids, Michigan

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The natural location of any operative incision is directly over the site of the part to be operated; but notwithstanding the simplicity and sensibleness of this proposition as a principle, a variation may sometimes prove advantageous. For instance, in order to prevent peritoneal contamination and probable infection in attacking abdominally an appendiceal or pelvic abscess unattached anteriorly, it is better to approach this abscess from the side, pushing forward the peritoneum and evacuating the pus retroperitoneally. Again, indirect or flanking movements are very much to be desired if by their employment we can diminish or practically eliminate the risk of post-operative hernia.

*Read before the Kent County Medical Society at Grand Rapids, Mich., March 23, 1910.

The chief operative sites in abdominal attack, and noted in the order of their frequency, are four in number, viz:

1. The umbilico-hypogastric,
2. The right inguinal,
3. The right hypochondriac and
4. The umbilico-epigastric.

The first of these regions commands the organs of the female pelvis and the bladder and rectum of the male. The second, the appendix vermiformis. The third, the gall-bladder and bile ducts. The fourth, the stomach, the duodenum and the pancreas.

Some of these incisions are vertical; some, oblique; some, transverse. Some are simple, going directly through the abdominal parietes; while some are complicated, passing through the different tissue planes along lines at variance with the line of tegumentary severance. Some are of surpassing value in their capacity for achievement; some, of no particular moment.

The names of certain operators are associated with various abdominal incisions. The desirability of this nomenclature has been called into question; but on the whole it seems to me simple and expressive.

No incision except in the teeth of a coercing contingency should ever be made *across* muscle fibres. Muscle bundles should be separated by blunt dissection in a line of course parallel with their longitudinal axes. Again, no incision should ever divide nerve trunks when it is possible to avoid doing this, for by so proceeding damage usually of an irreparable character as manifested by a more or less complete state of paralysis will eventuate.

The facts rehearsed in the foregoing show the difference between good and bad incisions and so, while it is impossible to remain utterly negative and inflict no damage whatever upon the various structures in our operative proceedings, it nevertheless behooves us to espouse that plan which, other things being equal, carries with it the *least* damage and which will permit so far as is possible a *restitutio ad integrum*.

Acting upon this idea I have drawn up a schematic arrangement of abdominal incisions as follows:

1. Central
   - *a.* Direct (Vertical)
     1. Infra-umbilical
     2. Supra-umbilical
   - *b.* Indirect (Transverso-Pfannenstiel vertical)
2. Hypochondriac (Direct)
   - *a.* Kocher
   - *b.* Mayo Robson
   - *c.* Bevan
3. Inguinal (Indirect)
   - *a.* Mc Burney—(Gridiron)
   - *b.* Weir
4. Latero-vertical (Indirect)
   - *a.* Battle-Jalaguier-Kammerer
   - *b.* Graves

Coming directly to the topic of the evening, viz.—"A New Gateway, etc.," I desire to call your attention briefly to the rectus abdominalis muscle, its character, its environment and its blood and nerve supply.

The rectus is a flat, ribbony band of striated muscle extending from the pubic crest to the cartilages of the fifth, sixth and seventh ribs. It is thicker and narrower below, becoming thinner and broader as it proceeds on its pubo-costal way. Its sheath is formed by a splitting of the aponeurosis of the internal oblique muscle, reinforced anteriorly by that of the external oblique and posteriorly by that of the transversalis. This arrangement fails of

perfection throughout the first or lower quarter of the muscle's course in which region all these aponeurotic sheets, fused, pass in front of the muscle and form the sheath anteriorly. Posterior to the muscle in this locality the only semblance of a sheath is the transversalis fascia. Across the muscle, completely or incompletely and directly or in a more or less irregular fashion, pass the connective tissue bands known technically as the *lineæ transversæ*. These bands attach sheath to muscle, rendering the rectus a segmental organ and adding materially to its strength. There are usually three of these bands, the lowest located opposite the umbilicus and the other two at varying sites between that point and the insertion of the muscle. Authorities state that occasionally another one is found below the umbilicus and this declaration has been verified by my own observation. Should this additional band exist it will be found not far below the level of the umbilicus.

The blood supply of the rectus is from the superior epigastric branch of the internal mammary and the deep epigastric branch of the external iliac, these vessels finally merging the one into the other. The former enters the body of the muscle at its costal extremity or insertion and the latter after forming the outer boundary of Hesselbach's triangle, traversing the space between the transversalis fascia and the peritoneum, reaches the muscle near the junction of the first and second quarters and pierces its substance after a short vertical run behind its center.

The latter statement is a point to be taken into consideration in discussing the merits of the new incision. The important part in this description, however, lies in discussing the course of the nerves which supply the rectus. They are derived from the lower thoracic and the ilio-hypogastric branch of the lumbar plexus. These nerves approach the rectus from their bed in the transversalis fascia, pass beneath its outer edge and penetrate its substance posteriorly but not far from the external border. In this arrangement lies the second item of importance bearing upon the new line of preliminary procedure.

Concretely as to technique, an incision is made along the center of the rectus through integument, fascia and the anterior layer of the sheath; then the muscle is displaced outwardly and the incision deepened behind the normal center of the muscle through the remaining structures of the wall, viz.—the posterior layer of the sheath, the transversalis fascia, the preperitoneal fat and the peritoneum, or the three latter in the absence of the first. Closure axiomatically is the reverse of the preceding.

It will be noted (according to the schematic description earlier in the paper) that the Battle-Jalaguier-Kammerer plan is very much the same as that of the writer; but with this vital distinction, that in the B-J-K plan the muscle is reflected *inwardly*, thus condemning to death a certain number of nerves according to the length of the incision and hence leaving zones of paralyzed muscle as an unescapable inheritance. The deep epigastric artery may also be sacrificed and while arterial anastomoses are so free as to render such contingency by no means a castrophe still no one can honestly say that the normal blood supply and arrangement of an organ are not better left undisturbed. This point, as well as others mentioned, rests upon the irrefutable theory that that operation is the best one which in the accomplishment of its object least disturbs the normal relations and functions of the tissues or the viscera. However, the item of greatest importance in the proposal recommended is the preservation of the muscle's nerve

supply, thus permitting the placing of a live, healthy, tonic, innervated, normal muscle as a buttress between two lines of incision. Such an act aseptically done cannot fail to furnish an additional safeguard against the annoyance and danger associated with a ventral hernia.

A desideratum in connection with any incision is its capability of easy and natural extension. It is scarcely necessary to present for your consideration the possibilities of the new suggestion as bearing upon this point.

Then again there arises the question of drain-location in cases where drainage seems advisable, after the writer's incision has been made. This is best accomplished by placing a split rubber tube or a cigarette drain through a stab wound directly over the suspicious spot, leaving the incision for complete closure, a point in itself not inconsiderable.

While the incision was devised specifically for the operation of appendectomy in the interval it has been used by the writer for the purpose of approaching all forms of appendiceal disturbance except that associated with the development of a local, circumscribed abscess; with pelvic work and with work involving the exposure of the gall bladder and the bile ducts.

Lack of a ready extensibility is the fault to be found with the McBurney incision and although by the suggestion of Robert Weir it can be amplified to a certain degree, it nevertheless exhibits in this limitation a deficiency which mars its otherwise splendid qualities. However, the McBurney and also the Pfannenstiel incisions are certainly beautiful ones, based upon sound principles and are admirably adapted in certain cases to a successful entrance and, what is often lost sight of, to an equally successful exit.

In the retreat from Moscow, Bonaparte selected as the commander of the rear guard the superb Marshall Ney, "the bravest of the brave," as Napoleon himself termed him. This shows the consideration which the great warrior felt for the protection of his line of retreat and it would be better were many surgeons to emulate him in this respect, as "Generals" McBurney and Pfannenstiel have done, retreating in good order and keeping the van of the enemy well in check.

For the operation of appendectomy as well as for surgical procedures in the territory contiguous to the line of the right (or left) rectus muscle I recommend the new incision and I bespeak for it at the hands of the profession kindly consideration.

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## SURGICAL SUGGESTIONS

Much information concerning the nature of an injury to the elbow can be derived by comparison of the joints on both sides posteriorly, the patient facing away from the examiner.—*American Journal of Surgery.*

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Subacute osteomyelitis at the mid-shaft of the tibia is often post-typhoidal.—*American Journal of Surgery.*

Passing a catheter often cures post-operative abdominal pain not relieved by other means.—*American Journal of Surgery.*

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In most exploratory laparotomies the seat of disease may be discovered by tracing the attachment of an adherent portion of omentum.—*American Journal of Surgery.*

# APPENDICITIS *

W. J. HERRINGTON, M. D.
Bad Axe, Michigan

I thought it might be interesting if I gave a short summary of the cases operated on in the Hubbard Hospital and of a few complicated cases in private houses during the same time.

We have operated on 79 cases in the hospital with two deaths, one occurring in the hospital and one at the patient's home after leaving that institution. Perhaps I have operated on one-third as many patients outside with no mortality due to the operation. Three in the hospital had gangrenous and perforated appendicitis with pus in the abdomen; two outside patients were in the same conditions. All recovered. Three or four had circumscribed abscess; the rest were either acute or chronic cases. Two were complicated with pregnancy, as also were two outside ones. Only one went to term, but all recovered from the operation itself. Two patients in the hospital and one outside had obstruction of the bowels following an old appendicitis; in two the appendix was involved in the obstructing bands and was removed. One was almost inextricably involved in a pyosalpinx and was removed in the course of an operation for the latter. As a rule the convalescence has been smooth, pain being much less than in an ordinary attack of appendicitis.

Only the gangrenous and suppurative cases were drained. I should say that one case of abscess was followed by a fecal fistula, which has since closed. A similar case in a child in the country also recovered, although the child was desperately sick previous to the operation.

In reporting these cases, I wish to give the conclusions I have formed as a result of their study and of a fairly extensive acquaintance with the literature as it appears in some one-half dozen medical journals and books published in the last few years, together with a few remarks on symptoms, diagnosis, prognosis, and treatment. I will omit etiology and pathology.

*Symptoms:* There is (1) generally a severe and sudden abdominal pain, diffuse, most marked in the umbilical or epigastric region; (2) nausea or vomiting; (3) tenderness over McBurney's point; (4) fever, and (5) as peritoneal irritation comes on, rigidity of the muscles. Dr. Murphy states that the above symptoms coming in a certain definite order are characteristic of appendicitis; namely, first pain, then nausea or vomiting; afterwards tenderness, and finally fever, appearing in from 6 to 24 hours. If nausea or vomiting or fever should appear before the pain he would question the diagnosis. I have found this useful in acute cases. In chronic cases, there is tenderness in the appendiceal region, and according to Morris, in a spot about one inch to the right of the umbilicus in a line extending from the umbilicus to the right iliac spine. There may be constipation or diarrhea, or the two alternately, sometimes mucous colitis, paroxysmal attacks of pain in epigastrium, at times accom-

*Read before the Huron County Medical Society, Bad Axe, Mich., October 18, 1909.

panied with diarrhea or vomiting; or accumulation of gas; in short, the ordinary symptoms of dyspepsia, so-called.

*Diagnosis:* It must be differentiated from intestinal colic; gastro-enteritis; hepatic, renal and ureteral colic; gastric or duodenal ulcers, perforated or not; right-sided salpingitis or extra-uterine pregnancy; oophoritis, and, last but not least, pneumonia. Mistakes are apt to arise if the above affections, and a few others rarely occurring, are not borne in mind. No opinion should be given until diagnosis is made and the cases are watched for a day or so, if possible. But occasionally it is extremely difficult or impossible to make an exact diagnosis, as the following cases will show. Of course, with increasing experience, fewer mistakes are made.

Mrs. C., a lady of forty, came under my care some years ago, complaining of digestive disturbances and attacks of pain in the abdomen, atrociously severe, and accompanied with diarrhea and vomiting; both are very difficult to control. The attacks were more or less periodical; the pain was located in the right side of the abdomen, chiefly at the upper part. At any time, the slightest indiscretion in diet would bring on an attack of diarrhea and for some years she had lived almost exclusively on bread and milk, not even daring to touch a potato. She never had fever, but always a slow pulse and a dry tongue. Physical examination always showed a very tender abdomen, at times most marked in gall-bladder region, at other times at McBurney's point. The complexion was sallow and the urine high colored, otherwise the latter was normal. Largely on account of the absence of fever and slow pulse I made a diagnosis of gall stones. On opening the abdomen, to my chagrin I found a perfectly healthy gall bladder, with free ducts. I drew up the appendix and found it slightly reddened and thickened. It was removed and in the course of a week my patient was eating almost everything. She gained about 40 pounds, and has been well ever since, now a period of several years.

Mr. B., a man of forty, was sent to the Hubbard Hospital with a diagnosis of acute appendicitis. He gave a history of previous attacks, and was evidently very sick and suffering intensely. On examination I found him very tender all over right side of abdomen, most marked at McBurney's point. The abdomen was as hard as a board. He was too ill to tell much about himself. His pulse was 128, temperature 102.6° and respiration 40.

I could get a few râles over right side of chest, and possibly light dullness. Operation was deferred until the following day. The dullness became more marked and breathing more characteristic of lung trouble; a slight cough was present. Dr. Morden saw him with me and we decided he had pneumonia. This was unmistakable by night. He lived only a couple of days, of course dying without operation. Here the diagnosis of appendicitis was first made by a good physician and I do not believe anybody could be certain for the first day or so. Possibly there was appendicitis also, though I think not. The following two cases are examples of rare complications.

Mr. R , a large strong man of superb physique, was admitted to the Hubbard Hospital on the second day of attack. The pain was atrocious and tenderness marked in appendiceal region; he was rapidly getting worse. On dissection I found the appendix retrocecal and bound down by the firmest adhesions I ever saw; with the utmost difficulty these were separated, and the appendix, the tip of which reached the lower border of the liver, removed. For four days he did well; a severe chill

was experienced, followed by a high temperature. In a few days he became jaundiced. His temperature would remain normal or nearly so for a few days; then again occurred a chill, fever and sweat, the temperature would reach 105 degrees. He went on this way for four weeks and then died of exhaustion. I made a diagnosis of pyelophlebitis. According to Allbutt's "System," this complication occurs in about one-half of one per cent of cases and is invariably fatal and uninfluenced by treatment. Some half dozen other authors make the same statement; in this case the wound was drained and nearly healed when the patient died. Septic thrombosis is said to occur more often in appendicitis than in any other condition affecting the portal system.

The other rare case is a young woman of nineteen, pregnant about three months. She also was suffering intensely and was evidently quite sick. The operation was simple and was completed in fifteen minutes or less. She complained of more pain than usual after the operation and was very restless, throwing herself from side to side of the bed. Apparently this was due to pelvic pain. I felt compelled to remove the fetus. She apparently improved and went home. There she did not do well and I was called to see her again. I could find no trouble in the abdomen or pelvis, but the right side of the chest was distended and flat to percussions, with complete absence of breath sounds. I removed about a quart of extremely offensive pus, and put in a drainage. Unfortunately she was unable to bear the operation in her weakened condition and died in 12 or 18 hours of exhaustion. Empyema is said to be caused by lymphatic infection in these cases. In this instance there was no drainage and the wound healed practically by first intention. Both these cases occurred within a few weeks of each other.

*Prognosis:* Medically treated cases of appendicitis give a mortality estimated at from 10 to 15 per cent, but the immediate mortality is not the whole story. Some recover after an extremely severe illness and remain well, doubtless because the appendix has sloughed and ruptured into the bowel. Others have recurrent attacks or are never free from pain in the right side; while others again suffer from gas in the stomach and so-called dyspepsia, gastric and intestinal.

*Treatment:* The more I see of the cases the more I am convinced that the only correct treatment is surgical and that at the earliest stage. This will give a mortality of less than one per cent if the disease has not extended beyond the appendix. When the peritoneum is involved, and according to its extent, the mortality is increased; but this is constantly decreasing under improved methods of treatment. Distended abdomens with diffused peritonitis of two to four days duration are bad operative cases and many will die under any treatment. It is to these especially that the Ochsner treatment is applicable.

In my experience there seems to be considerable uncertainty as to what is meant by the Ochsner treatment, hence I will describe the same as given by himself: (1) Patients with a chronic recurrent appendicitis should be operated on in the interval. (2) Patients with acute appendicitis should be operated on as soon as diagnosis is made, provided that the disease is confined to the appendix and a competent surgeon is available. (3) Aside from assuring a low mortality, this will prevent all serious complications. (4) In all cases of acute appendicitis, without regard to treatment contemplated, food and cathartics by mouth should be absolutely prohibited and large enemata should not be given. (5) In case of nausea or vomiting or gaseous distension of the abdomen, gastric lavage

should be used. (6) In cases where the infection has extended beyond the tissues of the appendix and especially if diffuse peritonitis is beginning, treatment should be indicated by conclusions four and five, until the patient's condition makes operative interference safe. (7) In case no operation is done, neither nourishment nor cathartics should be given by mouth until the patient has been free from pain and temperature normal for at least four days. (8) During the beginning of this treatment not even water should be given by mouth, thirst being quenched by rinsing mouth with cold water and by the use of small enemata. Later small sips of warm water may be given, and still later small sips of cold water. There is danger in giving water too freely and there is great danger in the use of large enemata. (9) All doctors, as well as the public, should be impressed with the importance of prohibiting the use of cathartics and food by mouth as well as the use of large enemata in cases of acute appendicitis. (10) It should be constantly borne in mind that even the slightest amount of liquid food of any kind given by the mouth may excite dangerous peristalsis. (11) The most convenient form of rectal feeding consists in the use of one of the predigested liquid foods on the market, mixed with three ounces of warm normal salt solution, slowly injected through a soft catheter inserted a distance of two or three inches. (12) This form of treatment cannot supplant the operative treatment of acute appendicitis, but it can and should be used to reduce mortality by changing the class of cases in which the mortality is greatest, into another class in which the mortality is very small, after the operation.

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## SURGICAL SUGGESTIONS

Surgery is meddlesome therapy in the vast majority of cases of acute hemorrhage from gastric ulcer.—*American Journal of Surgery.*

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The presence of shreds in the urine is a presumptive evidence more useful to the surgeon who seeks the etiology of a monarticular inflammation than is the denial by the patient that he has had gonorrhea. —*American Journal of Surgery.*

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"Sexual neurasthenia" in the male not infrequently depends on disease in the posterior urethra.—*American Journal of Surgery.*

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Perforation may be the first serious sign of carcinoma of the pylorus as well as of ulcer.—*American Journal of Surgery.*

Pulsating bone swellings are almost invariably sarcomata.—*American Journal of Surgery.*

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There is often a "clear interval" after a stab wound of the heart, similar to that following laceration of the middle meningeal artery.—*American Journal of Surgery.*

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To the present, the best results in the treatment of injuries of the lungs have been obtained by conservative therapy.—*American Journal of Surgery.*

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Glycerine dressings covered by rubber tissue, are frequently more useful than the ordinary wet dressings in reducing inflammatory swelling and in relieving pain.—*American Journal of Surgery.*

The Journal of the Michigan State Medical Society

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JULY

# EDITORIAL

## THE ST. LOUIS MEETING

The St. Louis meeting of the American Medical Association was one of the best in its history. For the most part the weather was propitious, and the attendance about 4,500. The whole meeting was as harmonious as one could wish, the scientific work was profitable, and the entertainments enjoyable. Dr. Claude A. Smith of Birmingham, Alabama, was awarded the prize of $500 for scientific work in the study of Hookworm Disease.

## NEW INSIGNIA

In 1906 about twenty-six powers were represented at a meeting of the International Red Cross Association. The United States were represented. At this meeting the signatory powers pledged themselves "to take or recommend to their Legislatures such measures as may be necessary to prevent the use by private persons or by societies other than those upon which this convention confers the right thereto, of the emblem or name of the Red Cross," etc.

There is no law in the United States under which an organization which was using the Red Cross prior to 1906 can be compelled to discard it, but the American Medical Association voluntarily does so, in order to aid the government to carry out its obligation.

The new insignia is to be the Knotty Rod and Serpent of Æsculapius upon a scarlet and gold shield.

## "MEET ME IN BAY CITY"

The Arrangements Committee report that the arrangements for the 45th Annual Meeting of the Michigan State Medical Society are progressing rapidly and satisfactorily. They are planning on an attendance of 500 at least, and have adopted the motto, "Meet Me in Bay City."

Each member of the Bay County Medical Society has agreed to in all his correspondence urge his friends to attend this meeting, and each one is holding himself responsible, personally, for a good attendance. Let us all make an especial effort to attend this meeting. It will be at a time when we will probably not be bothered by intensely hot weather, all will have had their vacation, and will be better able to make this meeting a success, both scientifically and socially.

## ROBERT KOCH

Robert Koch died at Baden-Baden the afternoon of May 27th of heart disease. The mere mention of this death is sufficient for the medical profession of Michigan. We all know the wonderful work he did for bacteriology and for humanity; we know his work on the Tubercle Bacillus, the Comma Bacillus of Asiatic Cholera and much other work—we all have learned Koch's Laws in regard to whether a given germ is the causative factor of a disease—it is unnecessary to enumerate his many works and attainments. We all knew his worth—we all mourn his death.

## IN MEMORIAM

Dr. Eugene Hodenpyl of New York City, whose untimely death, from pneumonia, at the age of forty-six, occurred on May 5th, was known as one of the ablest pathologists of New York, and the work into which he had thrown all his energy and effort for the last two years was one which will perhaps enable his successors to work out a cure for cancer. He had found that a number of cancerous patients who were considered beyond operative help were relieved, at least temporarily, from all symptoms by the injection of the ascitic fluid obtained by tapping a patient who was one of those rare ones that sometimes recover of themselves from extensive carcinoma.

It is premature at this time to predict that a cancer cure has been discovered; but it is probable that one of the greatest steps forward has been taken, and though the obtaining of antiserum in appreciable quantities may be the work of his successors, the glory of having indicated the new line of work will be associated with Dr. Hodenpyl's memory.—*Lancet Clinic.*

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Wm. Dunstone, Dollar Bay, for 44 years a practitioner of medicine at that place, died May 18 from senile debility, age seventy-nine.

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N. G. Dryer, University of Buffalo, 1869, a practitioner for 40 years at Bath, Mich., died April 23 from cerebral hemorrhage, aged seventy-one, at Perkins, Oklahoma.

## SIXTY-FIRST ANNUAL MEETING OF THE AMERICAN MEDICAL ASSOCIATION, ST. LOUIS, MO., JUNE 7-10, 1910

At this meeting the total registration was less than that at the Chicago or Boston meetings, but exceeding that at the last two Atlantic City meetings, 1907 and 1909.

The following were registered from Michigan:

Aaron, C. D., Detroit
Abrams, E. T., Dollar Bay
Anderson, Willis S., Detroit
Ballin, Max, Detroit
Bell, J. N., Detroit
Blain, Alexander W., Detroit
Brady, E. J., Kalamazoo
Carstens, J. H., Detroit
Chapman, W. E., Cheboygan
Cleland, Jas., Jr., Detroit
Connor, Leartus, Detroit
Connor, Ray, Detroit
Crane, A. W., Kalamazoo
Cushman, M. L., Lansing
Darling, C. G., Ann Arbor
Davey, B. M., Lansing
Davis, Clara, Lansing
Douglas, Chas., Detroit
Dunlap, H. M., Battle Creek
Eggleston, E. L., Battle Creek
Epler, Blanch N., Kalamazoo
Freund, Hugo A., Detroit
Friedlaender, B., Sebewaing
Hass, E. W., Detroit
Haughey, Wilfrid, Battle Creek
Hill, H. C., Benton Harbor
Hirschman, Louis J., Detroit
Holmes, Arthur D., Detroit
Houghton, E. M., Detroit
Hume, A. M., Owosso
Ives, A. W., Detroit
Jackson, John B., Kalamazoo
Kane, D. M., Sturgis
Kassabian, Nushan H., Coopersville
Kirton, J. R. W., Phœnix
Larned, E. R., Detroit
Mackenzie, R. G., Ann Arbor
MacRae, John, Calumet
MacQueen, D. K., Laurium
McClure, F. E., Detroit
McKain, C. H., Vicksburg
McKean, Geo. E., Detroit
McLandress, J. A., St. Charles
McLean, Angus, Detroit
McNamara, W. E., Trimountain
Manton, W. P., Detroit

Marshall, E. B., Muskegon
Martin, W. F., Battle Creek
Miner, S. G., Detroit
Moore, G. W., Munger
Morse H. B., Bay City
Oakman, C. S., Detroit
Odell, Anna, Detroit
Osborn, Samuel, Lansing
Parker, W. R., Detroit
Parmeter, Rolland, Detroit
Peterson, R., Ann Arbor
Potter, G. E., Detroit
Robbins, Frederick W., Detroit
Robinson, F. W., Sturgis
Rowland, R. S., Detroit
Sample, John Thomas, Saginaw
Sample, C. H., Saginaw
Sanderson, H. H., Detroit
Sands, T. E., Battle Creek
Schoch, A. C., Coldwater
Shurley, B. R., Detroit
Smith, H. S., Ishpeming
Smith, R. R., Grand Rapids
Smithies, Frank, Ann Arbor
Spitzley, W. A., Detroit
Starring, Anna M. F., Detroit
Treat, David S., Adrian
Vandervoort, Louie E., Battle Creek
Vandeventer, Vivian H., Ishpeming
Van Zwaluenburg, J. G., Ann Arbor
Varney, H. R., Detroit
Vaughan, J. W., Detroit
Vaughan, V. C., Ann Arbor
Walker, Henry O., Detroit
Walker, R. A., Menominee
Warthin, A. S., Ann Arbor
Wickham, A. B., Detroit
Wiggers, C. J., Ann Arbor
Young, W. G., Grand Rapids
Youngquist, O. G., Marquette

The scientific and social programs were fully up to the standard. The arrangements being all that could be asked. The meeting places were all along Grand Ave. within a distance of eight blocks. A stenographer, paraffin individual water cups, telephone service, and in some instances lunch was furnished free to the members of the sections.

For the ladies a trip was arranged to University City, a steamboat excursion to Jefferson Barracks and an entertainment with music and refreshments at Shaws Garden.

For members and guests were the various alumni and section banquets and reunions; the President's reception, a general Entertainment at Forest Park Highlands, and a visit to the grounds of the Aero Club, where it was hoped to have an aeroplane exhibit which the rain and high winds prevented.

The following papers were presented by Michigan men:

Section on Practice of Medicine:

The Diagnostic Significance of the Paravertebral Triangle of Percussion Dullness (Groccos' Sign). Frank Smithies, Ann Arbor.

Section on Obstetrics and Diseases of Women:

Uselessness of Local Treatment in Puerperal Sepsis. J. H. Carstens, Detroit.

Enteroptosis, with Special Reference to its etiology and development, and remarks on the results of examination of 400 women with reference to this condition. R. R. Smith, Grand Rapids.

Indications for, and Technic of Rapid Emptying of the Uterus in the Toxemias of Pregnancy. Reuben Peterson, Ann Arbor.

Section on Surgery:

A Simple Operation for Hermorrhoids Without Hemorrhage. Louis J. Hirschman, Detroit.

Section on Ophthalmology:

Opthalmia Nodosa, or Caterpillar-Hair Ophthalmia, with report of a case. W. R. Parker, Detroit.

Report of Committee on Family Physician Refraction. Leartus Connor, Detroit.

Section on Laryngology and Otology:

The Difficulties Associated with the Operation for Enucleation of the Faucial Tonsils, and Contraindication for this Procedure. B. R. Shurley, Detroit.

Section on Nervous and Mental Diseases:

The Functions of the Psychopathic Hospital. A. M. Barrett, Ann Arbor.

Section on Preventive Medicine and Public Health:

The Role of Obstetrics in Preventive Medicine. W. P. Manton, Detroit.

Section on Diseases of Children:

Feeding of Fats to Infants and Difficulties Encountered in Feeding Them. Chas. Douglas, Detroit.

Section on Pathology and Physiology:

The Prognostic Significance of Pulse-Pressure

Changes During Hemorrhage. C. J. Wiggers, Ann Arbor.

Gangrene Following Carbon Monoxid (Coal Gas) Poisoning. Angus McLean, Detroit.

The Reaction of the Hemolymph Nodes to Infection and Intoxication. A. S. Warthin, Ann Arbor.

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Dr J. H. Blackburn, Director of Post-Graduate Work reported that more counties than ever before are following this work, and announced that the program for next year will be ready August 1st, and may be secured from him at Bowling Green, Ky., or from the American Medical Association, Chicago.

The Committee on Ophthalmia Neonatorum was enlarged in scope and its name changed to The Committee on Blindness.

A committee was created to bring about, if possible. some standard eye tests for Pilots.

The election of officers resulted as follows:

President—John B. Murphy, Chicago.

1st Vice-President—E. E. Montgomery, Philadelphia.

2nd Vice-President—R. C. Coffey, Portland, Ore.

3rd Vice-President—W. G. Moore, St. Louis, Mo.

4th Vice-President—H. L. Johnson, Washington, D. C.

Secretary—Geo. H. Simmons, Chicago.

Trustees for three years:

W. W. Grant, Denver.

F. J. Lutz, St. Louis.

C. E. Cantrell, Greenville, Tex.

A New Council on Health and Public Policy was created, whose work shall embrace the following subjects:

Legislation
Organization
Publicity
Defense of Medical Research
Public Health.

The council may appoint committees to carry out the objects of the Council, and its office shall be at the headquarters of the Association.

The Council Consists of:

Henry M. Bracken, Minneapolis.

W. B. Cannon, Boston, Mass.

H. B. Favill, Chicago.

J. N. McCormick, Bowling Green, Ky.

W. C. Woodward, Washington, D. C.

Dr. Geo. Dock was appointed to the Council on Medical Education.

The next meeting will be held in Los Angeles, California.

## DETROIT COLLEGE OF MEDICINE COMMENCEMENT ADDRESS

By Hon. Chase S. Osborn, Sault Ste. Marie, Michigan.

This is the golden age of medicine. During the past century more progress has been made in your profession than during all the previous history of the world. More discoveries of new remedies have been made, more causes of disease have been found and more diagnostic aids have been originated than during all past time. All this has been accomplished despite the fact that the history of the practice of medicine is lost in the antiquity of China, Greece, Egypt, India, Phoenicia and Carthage. Chiron and Æsculapius, Hwang-ti and Hermes, the fathers of medicine on every side of the earth in the dead centuries long ago, if alive today could not be licensed to practice medicine in Michigan, as you are about to be, and a license to practice in Michigan carries with it the exalted privilege of practicing in all the world. Not only has wonderful progress been made in every direction of medical and surgical practice, but ideals, ethics and standards have grown finer and higher until the true medical man of today is nearer to being of the gods than in that olden time when he was considered to be really of the gods.

Within the last century smallpox has been mastered, thanks to Jenner. Morton discovered the use of ether as an anæsthetic in Boston, 1846, quickly followed by chloroform, by Simpson, at Edinburgh in 1847. Koller gave cocaine to the world in 1884. It was in 1882 that Koch discovered the tuberculosis bacillus and in 1883 he announced the comma bacillus of cholera. Diphtheria antitoxin is comparatively young, and aseptic surgery has been practiced for only a few years. The discovery of the typhoid fever bacillus by Eberth was made since most of you were born, and the finding of the phasmodium of malaria by Laveran was an accomplishment of 1880.

The peaceful, bloodless triumphs of Koch, Pasteur and Lister should make them greater world heroes and give them a higher place in history than Cæsar, Hannibal and Napoleon. Ogston, Rosenbach, Klebs, Metchnikoff, Kitasato, Welch, Donovan, Wright and numerous others should have monuments throughout their enlightened lands even before the heroic leaders of conquering armies. Their victories are over death and not life.

The pre-Pythagorean time was known as the sacred age of medicine. Sanitariums are older than Æsculapius. They were directed by

gymnasiarchs, and iatroliptes were the house physicians and internes, giving medical and surgical attention and massage. Following Hippocrates, the father of rational medicine, came the division of his disciples into various schools: Dogmatists, Empirics, Methodists and Eclectics, and the competition and rivalry between these schools was fierce and productive. The first dissections of the human body were made at Alexandria, 300 B. C., which was, under the first Ptolomy, the heart of the medical world. Heriophilus was the great anatomist of that time and his work so seized the attention of the rulers that medical men received much encouragement and assistance. Rome showed no great aptitude for medicine until the beginning of the Christian Era when Celsus appeared as a writer and authority, and made way for the great Galen, whose one hundred books dominated the entire world of medicine for centuries and whose humoral pathology held the leading place of acceptance until 1500 when it fell before the onslaughts of the brilliant and courageous but vain, arrogant and drunken Paracelsus. This most remarkable person with the next to impossible name of Philippus Aureolus Paracelsus Theophrastus Bombastus von Hohenhein, was the most accomplished medical iconoclast of record. He set all the medical men of the epoch by the ears, caused a furore in the entire medical world, publicly burned the works of Galen upon taking up a professorship at Basel, lectured in German instead of Latin, and shocked medical men into such determined action either against him or for him as to result in much good and leave a permanent impression. If irate medical attendants had not thrown him from a window at Salzburg and broken his neck while he was still in his forties, there is no telling where his genuis for research and his boldness would have led.

With the death of Galen came the dark age of medicine. Europe was ravaged by the wild hordes from the north and the Saracens from the south. All society was in a state of wildest flux to determine whether Europe should be on the one hand Slav, Teuton, Magyar or Latin and on the other whether it should be Christian or Mohammedan. It took centuries of clash and physical conflict to decide these world's problems and when Europe emerged from the storm of human strife there was little left of the arts and sciences. The early influences of Egypt on Greece, of Greece on Rome, and of Rome upon all Europe seemed to have been effaced. It took medicine longer to recover than anything else. The medical renaissance did not begin properly until the dawn of the nineteenth century. Mental, moral and physical activity seemed to attack the most important problems last and so we find ourselves surrounded today with a world of questions to answer and unfinished work to be done. Arabia suffered less than European countries and during the dark ages there was important medical activity in that part of Asia. The wise Ahrum wrote several valuable treatises, and the Arabs contributed rhubarb, senna, cassia and camphor and the art of distillation at an early date. Nestorian monks also did good service of preservation during the turmoil of obliteration. Finally medicine reasserted itself and got a new start with the establishment of a medical school at Salerno Italy.

The relationship between the practice of medicine and the supernatural was a very close one in primitive times. All wild tribesmen had and still have their medicine man, who practices frenzied orgies, incantations, spells, witchcraft and various kinds of demonology. They are supposed to intrigue with life and death and are always held in awe and reverence. As society advanced and became organized, the practice of medicine was invested in the priests and their temples were as medical in their purposes as moral. And man up to this time has not escaped this inherited influence. He still more or less secretly believes in and practices spells and wears charms. The buckeye and the base metallic ring and other fetishes are all in use today.

So really, we are surrounded by many primitive conditions. Many of our problems of today are medico-moral in character. You are to be leaders in progressive movements and captains in the reform army. If we police our people closely for their moral and material welfare, why should we not police them more closely for their physical well being?

It is a question whether the practice of medicine, and especially scientific hygiene and sanitation should not be placed on a public basis. No community is safer or cleaner or more wholesome than its filthiest alley, its most unclean home and its vilest slum district. Local, state and government health departments are doing much, but not enough. Using them as central organizations we must go farther, do more and be more thorough. Only a decade ago Michigan started its medical legislation that has

given it renown all over the world. Much indeed has been done in ten years, but there is more to do and you will have to lead in its performance. The public must be awakened along every line. It is already responsive and potent, thanks to active medical agitation, in the anti-tuberculosis campaign. The masses must be taught how to preserve their health and strength and they must have help every waking moment. Men, women and children should not be overworked or underfed. Working places, working homes and schools should be as clean and wholesome and in every way as sanitary as the richest home in the land. Landlords who build hovels and unsanitary houses, big or little, should receive corrective attention. In the days of the highest development of Judaism the government was as much concerned about the health of the people as about their morals. A sound mind in a sound body was the watchword. The Mosaic laws are filled with health regulations and sanitary requirements. The Talmud is at least half a medical work and so also is our own Holy Bible. In pre-Christian times there were not only city physicians, but communal physicians as well. Today the advanced nations of the earth give their armies and navies medical care. Our own work in Cuba and the marvellous extirpation of the deadly Stegomyia Calopus and its yellow fever burden by Col. Gorgas from the Panama Canal zone after the heroic Carroll test in 1900, and the martyrdom of Lazare and Myers, are most noteworthy examples. Some day our state will go into every district and factory and dairy and home, kindly, but efficiently and thoroughly, and not only insist upon sanitary conditions, but help to attain them.

There are a few, and their number is growing, who think that medical education should not only be in the hands of the state and medical practice supervised as at present, but that the basic ethics implied by the noble Hippocratic oath should be put into effect by state compensation of doctors, making them part of the public service, as in the days of Moses. Most physicians today are so attached to their profession and so properly submerged in it that they pay no heed whatever to the mercenary side of life. This, it would seem, is really as it should be. Under a state system only such numbers as might be proportioned to the medical needs of the population would be graduated for service in the state. They would be assigned their zones of practice, the rich and poor would be treated alike, there would be time given and especial opportunities for research, and honorary reward for efficiency. This may be looking long into the future, which Confucius says you can only divine by studying the past. This question will come to you for thought sooner or later.

With all that has been done in medical research the human is still upon the basis of the lower animal in dependence upon the automatic laws of nature. Given the same medicine or the same aseptic surgery the dog will recover as quickly as the most intelligent person, and even more quickly often, without regard to delicate comparisons of vitality and power of resistance and recuperation. The dog is not handicapped by nervous fears or future misgivings. Is there not a big field for research in this direction? Should not man finally be able under your guidance to select just the nutriment he desires for a special purpose and ultimately acquire the intellectual power to assimilate that nutriment and direct it to the spot where it is most needed, whether that be the decaying, loosening tooth or the amputated member? To a remarkable degree nature performs this function automatically in man and dog, but up to the present time man does not seem to be able to help himself any more than the dog. This is not as absurd as it sounds at first. Always the coarse and ignorant have decried and villified what they could not understand and so in your progress through the world you will meet with much intemperate and unreasonable opposition. But be not like the turbulent, belligerent, intolerant Paracelsus, though equally tenacious, and you will not be thrown out of a window and have your neck broken either actually or metaphorically.

It may be repeatedly said there is more to do than has been done. There may be many a Haffkine, or Senn among you. There are other diagnostic instruments beside the microscope, clinical thermometer and stethoscope to invent. Tetanus and hydrophobia are still a baffling mystery. The Opsonic index and polynuclear count may be in their infancy of potentiality. Your numerous leucocytic friends, the faithful phagocytes and the especially useful and numerous polymorpho-nuclears and also the mononuclears bid you to their scene of work and would fascinate you.

The medical profession is almost holy. You who follow it battle with death and suffering night and day. You bare your head and breast

to the scourging epidemic and risk your lives without fear. No oriflamme guides or inspires you. No blare of trumpet arouses you to heroic frenzy. Yours is the cool, poised, quiet, determined, unflinching courage, out of which exalted heroism is created. The standard, and especially the Michigan and American standard of medicine, already high, must be advanced. You are to put Addison's criticisms to scorn and remember with Gray that "bright-eyed science watches round." Today the lawyer keeps his client out of court if possible and in your profession preventive measures and medicine are to be the practice of the future. There is no place in medicine for any but the highest types of manhood. You must love and glorify your profession if you would succeed in it. Rochester and Glouchestershire prove that fame does not grow in the city, but in the brain and heart and soul of the physician. Genius has no hiding place and so swift are transportation and communication today that a man may be in the center of the throng even though he is located in the forest or upon the praire.

Brahminism required that a medical student should be of mild disposition, noble nature, lofty in acts, intelligent, modest, endowed with broad understanding, possessed of memory and judgment, truthful, thoughtful, poised, pure, compassionate, devoted to his profession, free from cupidity and sloughfulness and seeking the good of all creation.

The Greatest Physician, He who came out of Nazareth, should be your example, pure, holy, with charity, loving, kindly, hopeful, faithful, loyal, noble, simple, bearing agencies of comfort, messages of cheer and thoughts uplifting. In many families you may not only be physician, but preacher, teacher and faithful friend. Have a faith and attach yourself to it. Do not be of the elements of human chaos who know no creed or God—infidel, atheist, agnostic. We are living in a Christian land, under Christian influences, of a Christian civilization. Breathe deeply of its atmosphere, partake largely of its opportunities, be a true man, an honest doctor, a helpful citizen and a faithful friend and all men who are blessed by coming to know thee, will rise up and praise thy name and call thee blessed.

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# COUNTY SOCIETY NEWS

## ELEVENTH COUNCILOR DISTRICT

The Annual Meeting of the Medical Society of the Eleventh Councilor District.

The meeting was called to order promptly at 10:30 A. M., May 17, at the City Hall, Greenville, with the President and Secretary of the Montcalm County Medical Society presiding and about forty-five in attendance.

Dr. Lee presented a case of Infantile Inguinal Hernia and Dr. Bower a case of Pulmonary Tuberculosis. This latter case was a man of about forty who spent six months at Howell and was also treated at Grand Rapids, after which he was sent home to die. Outdoor air and other appropriate treatment, however, have worked wonders, and the man has only very faint chest lesion demonstrable. The Society next adjourned to the Hospital for a surgical clinic on removal of tonsils by Dr. Wilfrid Haughey, State Secretary. Dr. Haughey demonstrated the method of removal of tonsils by finger dissection. He spoke of the various methods of finger dissection, and uses the method of cutting the mucosa above the tonsil, and separating the tonsil from above downward, working forward and backward between the pillars. The root may be separated with a snare or scissors.

Dr. A. A. Spoor of Big Rapids, read a paper on Bacterial Vaccines, and Vaccine Therapy, showing the work he has been doing along this line. This paper was discussed by Dr. G. S. Williams of Muskegon and Dr. W. T. Dodge of Big Rapids. Dr. Dodge reported some cases—one an engineer who had suffered for months with acute nephritis. He was treated with autogenous bacterial vaccines, prepared from the urine, and made a good recovery. Later he developed a colon infection, which readily responded to colon vaccines.

Dr. Eugene Boise of Grand Rapids read a paper on Acute Nephritis, which is published

in this number of the JOURNAL. This paper was discussed by Doctors Cope, Williams and Bower.

Dr. F. B. Marshall of Muskegon read a paper on Gonorrheal Epididymitis, Treatment by Vasectomy, in which he outlined his treatment of this condition. See page 343 for this paper.

The paper was discussed by Dr. Williams and Dr. Dodge, who favored the treatment. Dr. Dodge said he never had done this operation as he seldom has many of this class of patients, but the method is certainly scientific.

Resolutions endorsing the Owen Bill on Public Health were passed. It was reported that Senator Smith and Congressmen Dodds, Townsend and McLaughlin have expressed themselves in favor of this bill, but the resolutions were ordered sent to them and other representatives of Michigan in the National Congress.

The Dodds Bill, H. R. 22239, introduced by Congressman Dodds of the Eleventh District was also endorsed.

A banquet was served by the ladies in the Parlors of the Congregational church. Following the banquet was a toast program presided over by Dr. O. A. Long, Supt. of the Ionia Asylum.

Dr. John Avery, Emeritus President of the Montcalm County Medical Society was a guest of honor, and responded to the first toast—repeating reminiscences of early years, when chloroform was new. He told many instances of demonstrating its wonderful powers of allaying pain during surgical operations.

The State Secretary, Dr. Wilfrid Haughey, of Battle Creek, dismissed the subject of Peanut Shells and Breakfast Foods, with the statement that he was a good advertisement for them. He spoke in detail of the problems before the Editor and Council in handling the JOURNAL.

The JOURNAL must have advertisements to help pay its expenses, or it cannot exist in its present form. He urged the members of the Society to remember that the JOURNAL is co-operative—partly owned by each member. If each one would patronize the advertisers, and use his influence with those he deals with who do not advertise in the JOURNAL, we would soon have all the advertising we could carry. We could now load up the pages, but are limited to advertising of ethical nature.

Dr. G. S. Williams responding to the toast, "How a Doctor Feels When He is Ill," said he never was known to preach a temperance lecture.

Dr. Eugene Boise in his incomparable way responded to "First Years of Practice." Dr. C. S. Cope to "What I Don't Know," and Dr. D. A McLean to "Reminiscences of the West."

The next meeting will be held in Muskegon at the call of the Councilor of the District and the officers of the Muskegon-Oceana County Medical Society.

H. L. BOWER, *Secretary.*

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## BRANCH

Our regular quarterly meeting which should have been held on the 3rd Tuesday in April was held at Quincy on May 6. The meeting was well attended and two excellent papers were read. Dr. O. Waters read a paper on "Ophthalmia of the New Born, and its Prevention." This paper was well received and aroused a general discussion. The second paper was by Dr. A. C. Schoch on "Surgical Diseases of the Abdomen, and Their Early Diagnosis." This was an excellent paper and seemed to be thoroughly enjoyed by every one present.

The Society voted to hold monthly meetings commencing with May. While we know that Branch County is one of the smallest in the State yet we thought that it would be advisable and profitable to us all to hold these monthly meetings. The July meeting which is our annual meeting will be held at Monison's Lake. This is called our picnic meeting. The physicians take a day off with their families and spend the day together, having a good social outing. Last year we held our meeting there and everybody reported having a fine time.

Two applicants were accepted as members, Drs. A. C. Schoch and L. W. Howe.

S. SCHULTZ, *Secretary.*

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## MONTCALM

The April meeting of the Montcalm Medical Society was held in Greenville. Two-thirds of our members were present, and an unusual interest in our Society meeting was manifested.

Dr. F. J. Fralick of Greenville was appointed to co-operate with the State Committee in the systematic examination of the eyes and ears of school children.

The matter of creating a health department in the cabinet of the nation was heartily concurred in, as was also a communication from the State Board of Health, relative to the early diagnosis of cancer and its cure.

One topic in the literary program was con-

sidered, Influenza. Three papers were read.

1 The Etiology and Pathology, by Dr. J. I. Nelson.

2. The Symptoms and Diagnosis, by Dr. E. M. Highfield.

3. The Prognosis and Treatment, by Dr. D. K. Black.

The subject was timely, the disease being very prevalent in Montcalm County.

H. L. BOWER, *Secretary.*

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### MUSKEGON-OCEANA

The regular meeting of the Muskegon-Oceana County Medical Society was held at the office of Dr. A. A. Smith, at Muskegon, Friday evening, May 13, 1910, at 8:30 o'clock.

Members present: Drs. J. F. Denslow, W. E. Dockry, Geo. S. Williams, C. P. Donelson, P. A. Quick, A. A. Smith, I. M. J. Hotvedt, W. P. Gamber, J. T. Cramer, F. B. Marshall, P. J. Sullivan, and L. I. Powers.

Doctor Donelson gave a paper upon "Open Air Treatment of Tuberculosis. Methods advisable in the Home and Colony and Sanitorium." The discussion was opened by Dr. Geo. S. Williams followed by Doctors Marshall, Gamber, Hotvedt and Denslow.

Meeting adjourned to meet in two weeks with Dr. Jacob Oosting at Muskegon.

The regular meeting of the Muskegon-Oceana County Medical Society was held at the residence of Dr. Jacob Oosting at Muskegon, Friday evening, May 27th, 1910.

Minutes of the last meeting read and approved as read.

Under new business, the matter of incorporation of the Society was discussed; also the matter of the County Society making a proposition to the Supervisors of Muskegon County for doing the County's medical work at some stated amount per year. It was moved and seconded that a special committee of three members, of which Dr. Chapman should be the Chairman, be appointed by the Chair to investigate and report as to the advisability of incorporating the Society.

The Chair appointed Doctors V. A. Chapman, Geo. S. Williams and J. T. Cramer as this Committee.

Dr. Oosting read a paper on "Fractures." In the temporary absence of Dr. Quick who was to open the discussion, this was taken up by Dr. Geo. S. Williams followed by Dr. C. P. Donelson and, on his return, by Dr. Quick followed by Dr. Campbell and Dr. Oosting in closing.

V. A. CHAPMAN, *Secretary.*

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### WAYNE

General meeting Monday, May 16th. The annual election resulted as follows:

President, Dr. Angus McLean; Vice-President, Dr. P. M. Hickey; Secretary and Treasurer, Dr. R. C. Jamieson; Board of Directors, Dr. Arthur D. Holmes, Dr. Frank B. Tibbals, Dr. E. B. Smith, Dr. C. T. McClintock, Dr. B. R. Shurley; Executive Board of Defense League, Dr. A. P. Biddle and Dr. Guy L. Kiefer.

Dr. W. E. Blodgett presented a case of congenital enlargement of the left leg. The X-ray showed that the ends of the bones shared in the hypertrophy.

The subject of the evening was Acromegaly. Dr. Max Ballin read the paper. He first spoke of the embryology of the Hypophysis cerebri, showing how the gland was made up partly of epithelial and partly of nervous elements.

Experimentally, many, especially Cushing of Baltimore, have demonstrated that removal of the gland always leads to rapid emaciation and death.

Tumors of the gland are usually addenocystoma. They do not always produce the same chain of symptoms because the symptoms are not due to the mere presence of the tumor, but to the manner in which it acts on the gland; that is, whether it increases or diminishes the internal secretion of the gland. This was compared with hyper- and hypothyroidism. The diagnosis formerly confirmed only on post-mortem examination is now pretty clearly demonstrated by the *x*-Ray. As to treatment organo-therapy has thus far been unsuccessful. Removal of the growth has in the past ten years been tried and several cases in which good results followed the operation have been reported. Discussion.

Dr. B. R. Shurly spoke of the intra nasal route successfully performed by Dr. Norval Pierce of Chicago. The nasal septum is first removed, then the anterior and next the posterior wall of the sphenoid bone.

Dr. Don M. Campbell showed how tumors of the pituitary body sometimes produced a peculiar effect on the visual field and that the progress of the disease could well be studied by watching the changes it produced in the retina.

The building committee reported its recom-

mendations at this meeting. On motion of Dr. McLean it was, after a hearty discussion in which Doctors Tibbals, H. O. Walker, Carstens, McClintock, Flinterman, and E. B. Smith took part, decided that this committee develop the idea of a large medical home centrally located; that it investigate the approximate cost of such a building, its maintenance and the income that would be derived through the rental of its store, office space, etc. This committee was instructed to report if possible at the meeting to be held May 30, 1910.

Monday, May 23, instead of the regular meeting, Dr. J. W. Trask of Washington gave a lecture on "The Work of Public Health and Marine Hospital Service." He illustrated his lecture with the Stereoptican. There was a large attendance present. Dr. Trask's lecture was very interesting and instructive and it well demonstrated the stupendous amount of work that is done by this department in preventing the spread of communicable diseases.

The last meeting of the season of the Wayne County Medical Society was held Monday, May the 30th, Dr. Freund reported a case of perforating typhoid ulcer which had come to operation. Dr. Fay reported two cases of Fractured Patella, in which the result with chromic catgut suture was very satisfactory. Dr. Blain reported several favorable results with Beck's Bismuth paste injections.

The question of a medical home was then again discussed. It was decided that the committee purchase a suitable building large enough for a meeting place, medical library and a few extra rooms, remodel it and if possible have it ready for occupancy in September of this year.

The idea of erecting a large medical building with a suitable hall, library, office and store space was entirely discredited.

RAY ANDRIES, *Correspondent.*

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TO THE EDITOR: It is a foolish plan to allow a subscription to run a minute after the end of the year. There is no earthly reason why a physician ought not to be on hand with his cash without fooling around until you have to send statements or drop him from the list. He ought to know that his subscription and protection ceases Dec. 31st every year. While I am secretary here, no name will be carried after the end of the year. "Pay up or get out" causes all to cash up when they ought.

Yours fraternally,

S. E. GARDINER, *Sec'y.*

## NEWS

Edward W Sparrow of Lansing, has presented the city a site valued at $12,000 and $88,000 in cash for the erection of a new hospital.

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Dr. F. J. Hackney will return to Lupton, Mich., to practice. He left there a few years ago and went West. He is now doing Post Graduate work in Chicago.

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Dr. G. Sjolander of Midland is in Europe for a couple of months doing Post Graduate work.

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Dr. W. E. Blodgett of Detroit, was married to Miss Bishop of New York City, June 2nd.

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Dr. Victor C. Vaughan of Ann Arbor, 1st Lieut. M. R. C., delivered the address to the Graduating class of the Army Medical School, May 31, 1910.

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Twelve cases of Pellagra were demonstrated in the Section on Dermatology of the American Medical Association at St. Louis. Dr. H. R. Varney, the Secretary, was compelled to obtain the permission of several Governors of States interested to transfer these patients to St. Louis. The cases were very instructive.

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The International Association of Medical Museums met in Washington, D. C., May 3, and 4, 1910.

Dr. A. S. Warthin of Ann Arbor was elected President for the ensuing year.

It was moved by Professor Adami, seconded by Professor Klotz, and carried: That this Association favors the establishment of a European section, whose members shall be empowered to take the necessary steps to unite themselves for this purpose to hold meetings, whether annually or triennially, and to contribute papers, and, if necessary, arrange for the publication of the same

On motion of Prof. W. G. MacCallum, seconded by Dr. Harvey Gaylord, the Secretary was empowered to write to Prof. J. Ludwig Aschoff, Freiburg, Germany, asking him to undertake the management of such a European section and to arrange for the appointment of an Assistant-Secretary resident in Europe, who

shall enter into correspondence with the Secretary-Treasurer, and thus transact the necessary business.

Several new members were elected, and the association decided to meet next in Chicago the day before the meeting of the Association of Pathologists and Bacteriologists.

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Dr. O. C. Breitenbach, chemist of the municipal laboratory and milk inspector of Escanaba has accepted the surgeonship of the William Bonifas Lumber Company and the United Logging Company at Watersweet, Mich. He will have charge of the health of 400 men who are employed in these companies. In connection with this he is going to establish a hospital at Watersweet. He leaft Escanaba June 1, to take up his new work.

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Governor Judson Harmon of Ohio, has vetoed the optometry bill, and in so doing has interpreted a situation and set a standard that will have a telling and far-reaching effect on the governors and legislators of all the States of the Union.

There are times in the political life of every high official when there must be a halting between two opinions. It is always a time of crisis with that individual. It is strangely true that on one side of such a question is a principle of right standing alone, while on the other side is arrayed the power of wealth, party influence and the danger of giving offense and blighting future prospects. At such times a true statesman will inquire into the question of what is right; he will closely examine the meaning and intention of the existing laws, and analyze them to see if they are built along lofty lines, with no motive other than the protection of the common people and the promotion of health and happiness. What is commonly called "Politics" will not enter into the question at all. The element of greatness which distinguishes men and makes them leaders has its best opportunity to assert itself at such a crisis.—*Lancet Clinic.*

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Dr. Chas. H. Baker and family sailed from New York for Rotterdam, June 28th. They will visit Holland, Belgium, Germany, Switzerland, Italy, France, England and Scotland. Dr. Baker will visit some of the Clinics while in the large cities, and will return about Sept. 5 by the way of Montreal.

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The Medical Society of the Third Councilor District will hold its annual meeting at Sturgis, Michigan, July 22, at 1 P. M. This is the occasion of the Seventy-fifth Anniversary of the organization of the first St. Joseph County Medical Society, and will be an out-door meeting, with a good program. A large attendance is desired and visitors from other districts will be welcome.

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Detroit Hospital Appointments.

ST. MARY'S HOSPITAL

Dr. Elmer A. Pillon, D. C. of M. 1910.

Dr. Harvard Coll, D. C. of M. 1910.

Dr. G. H. Ross, Hamilton Toronto University, 1910.

Dr. Leo McCabe, Dr. Fred Organ and Dr. S. F. Haverstock have completed their internship and will begin private practice. Dr. McCabe will locate in Windsor, Ont., and Doctors Organ and Haverstock will remain in Detroit.

HARPER HOSPITAL

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|---|---|
| Dr. Norman M. Allen<br>Dr. A. E. Bryant<br>Dr. Vanney H. Dumond<br>Wm. E. Miller<br>Frank L. Morris<br>George J. Beberdy<br>Alvord R. Sanderson<br>Dr. Louis J. Sebille<br>Rene J. St. Louis | D. C. of M. 1910 |

Those having completed their internship at Harper Hospital are Drs. R. Robb, Wm. Cassidy and A. Sterling who will locate in Detroit; Dr. Fred Cole, who will become an assistant to Dr. Max Ballin, and Dr. Fowler who will locate in Canada.

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Dr. A. M. Hume of Owosso has recently been appointed chief surgeon of the Toledo and Ann Arbor Railroad with head offices at Owosso, the division terminal. Dr. Harold A. Hume, his son, has been appointed local surgeon, the appointment Dr. A. M. Hume has held for twenty odd years

# BOOK NOTICES

Inanition and Fattening Cures, by Prof. Dr. Carl Von Noorden, Professor of the First Medical Clinic, Vienna. Authorized American edition, edited and translated by Alfred C. Crofton, M. D., Chicago, New York: E. B. Treat & Co., 1910. Net $1.50.

This is the eighth volume of Prof. Von Noorden's Clinical Treatises on the Pathology and Therapy of Disorders of Metabolism and Nutrition. The style is interesting, the reasoning clear, and the analysis compelling. The first half of the book deals with inanition exhaustively, and the latter half with the fattening cures. Diets are given for different conditions and the reasons why they will be fattening for one individual and will not for another are clearly explained. This book is a valuable addition to Von Noorden's already famous clinical Treatises.

A Practical Treatise on Fractures and Dislocations. By Lewis A. Stimson, B. A., M. D., LL. D. (Yale), Professor of Surgery in Cornell University Medical College, New York; Surgeon to the St. Johns, and Christ Hospitals; Corresponding member of the Societe De Chirurgie of Paris. Sixth Edition, revised and enlarged, with 361 Illustrations and 65 plates in Monotint. Lea & Febiger, New York and Philadelph'a, 1910.

In the Sixth Edition Dr. Stimson has added much to his former works on Fractures and Dislocations. Those who are familiar with this author need not be told of the thoroughness with which he treats his subject. To new readers it may be well to say that everything o value pertaining to any fracture or dislocation known to the profession at the date the book was written will be found in its proper place. The anatomy of the part, the physiology, the mechanical uses and problems that enter into the diagnosis and treatment, the pathology and the results are each discussed in order, while under treatment every method that has at any time held the attention of the profession is given space from the most crude and antiquated down to the most modern and approved. The use of anæsthetics in both diagnosis and reduction of fractures as well as in dislocations is recognized and endorsed, though it does seem to the reviewer more stress might, with profit, be laid on this important feature, also to the employment of land marks and measurements, which although noticed could well be given more prominence and emphasis, especially in either fractures or dislocations about the wrist, ankle, elbow or knee.

Many skiagrams illustrative of the various peculiar and unique conditions in both fractures and dislocations are introduced into the work and add greatly to its interest and usefulness. In the discussion of treatment of old and unreduced dislocations a note of caution is sounded regarding hemorrhages and nerve injuries that may follow some of the more heroic efforts at mechanical reduction by dilatation and stretching of the surrounding ligaments, vessels, muscles, etc., also may be reasonably expected by operative procedure in such cases. To his friends the name of Stimpson insures the value of the book and all who study it must acknowledge the tact, skill and profound research necessary to compile such an exhaustive volume.

The Diseases of Infancy and Childhood. Designed for the use of students and practitioners of medicine. By Henry Koplik, M. D., Attending Physician to the Mount Sinai Hospital; Consulting Physician to the Hospital for Deformities, formerly attending physician to the Good Samaritan Dispensary, The St. John's Guild Hospitals, New York; Ex-President of the American Pediatric Society; member of the Association of American Physicians, and of the New York Academy of Medicine. Third Edition, revised and enlarged. Illustrated with 204 engravings and 39 plates in color and monochrome. Lea & Febiger, New York and Philadelphia

In the third edition Koplik nas produced a volume of practical utility and entirely up-to-date. As the title suggests, the work covers diseases of both infancy and childhood. The problems in Pediatrics constantly being solved as our knowledge of pathology and diagnosis in important diseases of both infancy and childhood increases, demands that frequent editions to work on these subjects be forthcoming. Koplik has well met the demand in this issue. In Section I Morbidity, Mortality, Normality, Development, Methods of Examination, Management and Hygiene, etc., receive careful consideration.

Infant feeding with a consideration of Pasteurization and Sterilization of milk, the advantages and disadvantages of each. How to sterilize. How to Pasteurize. The instruments for accomplishing each. The seasons of the year, the conditions and the reasons why each or either should be used. The addition of other articles as the age of the child increases, to the sixth year, with feeding of such infants makes Section II an exceedingly interesting and instructive section. Diseases of the Newborn, Rachitis and the Exanthemata occupy the next three sections. In the constitutional treatment of Diphtheria with antitoxine nothing is said

of the possibility of sensitizing the patient with the proteids contained in the serum. In the local treatment a full explanation of intubation together with instruments used and the method of operating is given. Tuberculosis and syphilis receive careful attention. Diseases of the mouth, stomach and ntestines, and the respiratory ystem are treated in sections VI, VII and VIII. The ci culatory system in IX, Diabetes in X, while the Lymph-Nodes, Ductless Glands and the blood are carefully handled in Section XI. The Bones, the Ear, the Kidneys and Urogen tal Tract receive attention in XII, XIII and XIV. The remainder of the work is devoted to the Nervous System and to the Skin. Here much new material of an interesting nature is introduced.

The book is profusely illustrated with up-to-date cuts. It also contains more than three dozen full page plates, beautifully placing before the eye the condition described in the text. Plate twenty-three, showing diphtheritic tonsils and fauces, is alone worth the price of the book.

Surgical After-Treatment By L. R. G. Crandon, A. M., M. D., Assistant in Surgery at Harvard Medical School. Octavo of 803 pages, with 265 original illustrations. Philadelphia and London: W. B. Saunders Company, 1910. Cloth, $6.00 net; Half Morocco, $7.50 net.

While Crandon has handled this subject from a common sense standpoint he recognizes that many general laws must be followed and has beautifully set forth his views, which if followed will bring order where now chaos reigns. He describes the ideal sick-room, chart, bed, posture, care during and after anæsthesia, nausea, vomiting, restlessness, sweating, etc. Thirst, its significance and relief, receive especial attention. Pain, sleep, hypodermic injections, pulse, temperature, respiration, hemorrhage, transfusion, shock, coma, collapse, sudden death, embolism, are a few headings followed by thorough discussions. Artificial respiration and resuscitation are described and illustrated. Diet and forms of artificial feeding are carefully considered. Catheterization, enemas, and care of the urinary organs and bowels are explained.

A chapter is devoted to bursting of the abdominal wound, another to the Sequela of Anæsthesia. Hiccough receives like attention and much space is devoted to bandaging, dressing, stitches. In septic wounds the use of poultices, heat, hyperemia is explained. Habits, delirium, bed-sores, artificial limbs are discussed. A chapter is devoted to massage, friction and movement, another to *x*-Ray therapy and Radium. The preparation of special areas complete Part I.

Part II is devoted to care of special operations, therapeutic immunization and vaccine therapy. Twenty-five pages are devoted to Laboratory technique including the preparation of vaccines, determining the opsonic index and the agglutination test for Typhoid.

The book closes with half a dozen pages of Food Recipes for invalids and convalescents.

This work is the result of new thought for 1910, will be a valuable aquisition to any library and will prove of immense benefit to those, either in private or hospital practice, who have the after-care of operative, accident or fracture cases.

Diseases of the Stomach and Intestines. By Robert Coleman Kemp, M. D., Professor of Gastro-intestinal Diseases. New York School of Clinical Medicine. Octavo of 766 pages with 279 illustrations. Philadelphia and London: W. B. Saunders Company, 1910. Cloth, $6.00 net; Half Morocco, $7.50 net

In the above mentioned work Dr. Kemp has given us a text book and a treatise on diseases of the stomach and intestines that will surely find its way into many libraries and prove a valuable and prized adjunct thereto. While the work is exhaustive it is at the same time clear cut and concise; so arranged that a given subject may be easily looked up and the smallest points grasped in a very few moments, or if one wishes to read the entire subject he will find it treated fully and at length.

The arrangement of the text into three parts is of advantage. Part first treats on the Anatomy, Physiology and Diagnosis. Part Second of Diseases of the Stomach. Part Third of Diseases of the Intestines.—A thoroughly practical and comprehensive division and grouping. Functional disturbances so prevalent among our people are handled with skill, both from prophylactic and curative standpoints. The diagnostic points are made clear and treatment indicated. Organic troubles are classified and plainly differentiated. There is much to commend and little to criticise in the volume.

Technique of Reduction Cures and Gout, Prof. Dr. Car. Von Noorden, Professor of the First Medical Clinic, Viennal Authorized American edition, edited and translated under the supervision of Alfred C. Crofton, Chicago: E. B. Treat & Co., New York, 1910. Net $1.50.

Part I of this, the ninth of Von Noorden's Clinical Treatises, analyses obesity and the indications for reduction cures. The various

reduction cures, including Diet, Muscular Exercise, Mineral Water Cures, Hydrotherapy, Thyroid Treatment are carefully described and their use directed.

The Treatise on Gout, Part II, describes the place of Uric Acid in Gout, and its source. The treatment is considered exhaustively..

This book is a fit companion for the many others in the series.

The Conquest of Disease through Animal Experimentation, by James Peter Warbasse, M. D. New York and London: D. Appleton & Co., 1910. Net $1.00.

This little volume is a strong defense of Medical Research and of its necessary attendant —vivisection—but not in the sense in which that term is used by its opponents. Dr. Warbasse points out distinctly that animal experimentation is not in any sense or degree inhuman as the "anti's" would have us believe—witness the following quotations:

"Practically all experiments performed upon animals are made by medical men, or men allied with the collateral sciences; and I know of no class of men who have higher ideals of the humane and who are prompted in their work by more noble motives than they."

"It has been perversely intimated that biologic investigators are simply working for glory. Would that we might say as much of every one, for glory is no mean ambition."

This is a work that should be in every medical library.

Medical Electricity and Roentgen Rays, by Sinclair Tousey, A. M., M. D., Consulting Surgeon to St. Bartholomew's Clinic, New York City, Octavo of 1116 pages, with 750 illustrations, 16 in colors. Philadelphia and London: W. B. Saunders Company, 1910. Cloth, $7.00 net; Half Morocco, $8.50 net.

In this work Tousey has given us a complete and comprehensive treatise on Medical Electricity and Roentgen Rays. In the preface the author proclaims the impossibility of any book on electricity being up to date, because of the rapid development of this science along such important lines, and then proceeds to give us a book that certainly approaches the impossible acme he proclaims.

Beginning with General Considerations, a brief, concise, but lucid description of the fundamentals of electricity as it is known to Science, together with sufficient experiments to insure comprehension, is given.

Static and Dynamic electricity with the machines to produce each are described. The description of the machines and how to operate them are made sufficiently clear for one interested to perfect himself in their use with no further instruction than he can get from this book. The spark, the force, units, sources, effects, and therapeutic action with methods of application are explained and illustrated.

Everything pertaining to the medicinal use of electricity is explained and valuable suggestions relative to the different machines and appliances are to be found in the work. As are also clear and precise instructions as to use to be found. To high-frequency currents are devoted about one hundred pages. The ionization, of gases, and Photography are elucidated but it is to the *x*-Ray and the wonderful phenomena produced by it that most attention is given.

After the genesis of the *x*-Ray a complete description of the tubes both in and out of working order is given. Both by text and illustration the great advance in diagnosis and localization of foreign bodies, or diseased processes as pus, necrosis, are noted. In the head, the orbit of the eye, ethmoid and sphemoid cells, the frontal and other sinuses of the face, and teeth roots are shown. The neck, chest, abdomen and extremities are considered in turn while under Rontgenotherapy a large chapter is devoted to the use of the *x*-Ray in many enumerated diseases and conditions where relief and cure by its intelligent use may be expected.

The book closes with a chapter on Radium. Radium activity, chemic, physiologic and pathologic effects and therapeutic uses of Radium are considered.

Prescription Writing and Formulary, by John M. Swan, M. D., Associate Professor of Clinical Medicine, Medico-Chirurgical College of Philadelphia. 32 mo. of 185 pages. Philadelphia and London: W. B. Saunders Company, 1910. Flexible leather, $1.25 net.

In the preface the Author expresses the hope that an appreciation of the rules of prescription writing may result in a diminution in the number of mistakes in continuing medicine, errors in form of prescription and inaccuracies. He also warns against too lightly discarding old and tried remedies to adopt the many new and possibly untried preparations coming and now on the markets.

He treats prescription writing as an art and shows how easily it can be accomplished. He endorses the use of Latin and gives a list of remedies, also one of adjectives with Latin end-

ings, accompanying them with some declensions and rules.

A goodly list of official "galenical" preparations consisting of waters, confections, elixirs, plasters, emulsions, liniments, oils, powders, pills, ointments, syrups, etc., are given.

Weights and measures, doses, number of ingredients, abbreviations, incompatibility, receives attention.

In the Formulary, conditions and diseases are alphabetically arranged, with a few illustrative prescriptions useful in each, suggestively grouped.

The whole is followed by a short but clear and lucid index.

The Pathology of the Living and Other Essays. By B. G. A. Moynihan M. S. (London) F. R. C. S., Honorary Surgeon to Leeds General Infirmary; Professor of Clinical Surgery at the University of Leeds, England, 12mo of 260 pp. Philadelphia and London: W. B. Saunders Company, 1910. Cloth, $2.00 net.

This book collects in a convenient volume several addresses read by Mr. Moynihan before medical societies and printed in the *British Medical Journal, The Lancet, The Edinburgh Medical Journal* and other periodicals during the past few years.

Moynihan believes that pathology as studied by surgeons during operation is vastly different from that studied upon the dead body, and is of far more value.

There are nine addresses. The one from which the book takes its name, one on Inaugural Symptoms; Gastro-Enterostomy and After; Early Diagnosis and Treatment of Cancer of the Stomach; The Surgery of the Common Bile Duct; Operation for Obstructive Jaundice and the Proper Selection of Cases; Violation of Courvoisier's Law; Mimicry of Malignant Disease of the Large Intestine; and Surgical Treatment of Cancer of the Sigmoid Flexure and Rectum, with especial reference to the principles to be observed.

All these subjects are live surgical ones, and are treated entertainingly and in an up-to-date manner, in Moynihan's own delightful way.

Education in Sexual Physiology and Hygiene. A Physician's Message, by Philip Zenner, Professor of Neurology in the Medical Department of the University of Cincinnati, Cincinnati. The Robert Clarke Company, 1910. Cloth, $1.00 net.

For several years we have had dinned into our ears the value of giving education in Sexual Physiology and Hygiene. We have been told to call attention to the development of plant life, to the prevalence of venereal disease, etc. We have heard much about the regulation of Prostutition. It is a relief and a pleasure to have something tangible placed before us. The question of what to say, and how to say it, is an ever present one,—one which palled Dr. Zenner himself. In this little book of Dr. Zinner's are four talks which he gave to school children. Three to boys and girls on Hygiene in General; Habit, and Alcohol. These are followed by a talk to boys on "The Origin of Life." The talks are given verbatim, and could be repeated, or rewritten, by any one attempting to do this work, with these as models.

Next follow talks to College Boys on Sexual Physiology and Hygiene, and Social Disease. Following are general instructions, and some consideration of the advantages and mode of teaching Sexual Physiology and Hygiene.

All through Dr. Zenner's book he urges strongly that care should be exercised not to do harm while attempting to do good; do not lay too much stress upon these truths you are tempting to teach, but rather mention them incidentally while dwelling upon other general truths; mention them sufficient to make your point, but not sufficient to arouse curiosity. In other words, leave the mind of the child clean and clear and free from speculation.

The book is beautifully written, is suitable for anyone to read, and is in no sense technical.

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## NOTICE

The secretaries of the sections desire all those expecting to present papers at the Bay City meeting, September 28-29, 1910, to send in a short abstract at once, as the program must be complete by July 15th.

R. Parmeter, M. D., Detroit
A. S. Kimball, M.D., Battle Creek
R. E. Balch, M. D., Kalamazoo

Wilfrid Haughey, M. D.,
State Secretary.

# SURGERY

Conducted by

R. E. BALCH, M. D., Kalamazoo, Michigan

**Peritoneal Patching of the Aorta.**—In order to determine whether an opening in a large artery can be closed by a peritoneal graft Alexis Carell performed a series of experiments upon the abdominal aorta of cats and dogs. His technique is as follows:

1. Preparation of the graft. Under anæsthesia a rectangular peritoneal flap is resected from the anterio-lateral wall of the abdomen. It is composed of the peritoneum together with the subperitoneal tissues alone or with the transverse muscle. The flap is then washed in Locke's solution and preserved for a few minutes in vaseline.

2. Opening of the Aorta. Hemostasis is secured by two Crile forceps and by ligature of the lumbar collaterals. The wall of the aorta is opened and a piece extirpated. This wall being hard and friable, great care must be used to keep the edges smooth and not bruised. As soon as the vessel is opened the blood is washed out and the edges covered with vaseline.

3. Graft. The patch is removed from the vaseline and with scissors is given the same size and shape as the opening of the aorta. It is fixed to the edge of the opening by four through and through stitches. Care must be taken to accurately approximate the vascular and peritoneal epithelium. Afterward the gratt is completed by continuous suture of the edges of the patch to the edges of the aortic opening.

4. Re-establishment of the circulation. The lower Crile forcep is first removed, while the line of suture is compressed by a gauze pad. Any hemorrhage is controlled by a few complementary stitches. The upper forcep is then removed and the circulation re-established.

Results of the experiments.—One animal died under anæsthesia. The second animal, a cat, placed under anæsthesia, a part of the abdominal aorta removed and replaced by peritoneal grafts. Five months later the cat was etherized and the anterior wall of the aorta was dissected loose. Pulsation was normal; there was no dilatation at the site of the graft; but the color was red owing to a transparency of the patch. Upon section of the vessel, the intima of the aorta and the internal side of the patch were smooth and glistening.

The third animal, a dog, was operated upon in the same manner and a year later under ether was opened and the aorta examined. No evidence of the graft was seen. There is not the slightest difference in the consistency and thickness of the wall. Upon close dissection an elliptical area is seen the color of which differs slightly from the normal.

Conclusion.—These experiments show that an artery can regenerate itself by using heterogeneous anatomical elements. The adaptation of the peritoneal patch to the aortic wall was so perfect that the vessel two years after the operation was absolutely normal. By a kind of mimicry the connective tissue cell assumed the appearance of muscular fibres.—*Journal of Experimental Medicine*, Mar. 14, 1910.

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**Radiographic Examination of the Injected Kidney Pelvis.**—After experimenting with different solutions that would give a shadow Doctors Uhle, Phaler, Mackinney and Miller of Philadelphia, have come to the conclusion that colloidal silver oxide, fifty per cent, was the best material obtainable for giving a radiographic picture of the renal pelvis.

Before injecting this salt into the renal pelvis, it was first used extensively in urethral and bladder irrigations and found to be non-irritating. The solution is injected through a ureteral catheter immediately preceding the *x*-Ray. It was found to cause no bad symptoms, provided that it was given slowly and not more than 5 c.c. injected. More than this would in some cases cause renal colic lasting from one to three hours.

Technique.—The buttocks of the patient are elevated and the catheter introduced for a distance of about three inches. The warm solution is allowed to flow by gravity from a graduated burette which is connected with the ureteral catheter by means of a rubber tubing to which is attached a small cannula. Then with a force of gravity of about two feet the fluid is allowed to flow.

The solution flows at times evenly, and at other times intermittently, but at other times it comes to a standstill. The fluid can be drained from ureter by the catheter or be allowed to flow into the bladder.

By the use of this solution a definite shadow of both ureter and pelvis can be obtained. Doubtful shadows in the region of the ureters caused by conditions other than calculus can thus be excluded. This method of examination determines the size of the kidney pelvis, the amount of destruction of the kidney substance and any alterations in the size and shape of the ureter.—April *Annals of Surgery*.

# OTO-LARYNGOLOGY

Conducted by

WILFRID HAUGHEY, M. D., Battle Creek, Michigan

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**Symposium—The Deaf Child—The Laryngoscope,** June 1910. J. Kerr Love of Glascow, Scotland, reviews the history of the teaching of the deaf child for the past three hundred years and comes to the following conclusions:

In order to focus attention on and to facilitate discussion of the chief points raised in this paper, they may be expressed in these propositions. 1. The education of deaf children without previous clinical examination and classification is wasteful and inefficient. 2. The massing of deaf children in institutions should be avoided except in the case of the mentally defective deaf. Necessitous deaf children should be fed, clad, and when necessary, boarded out of the expense of the educational authorities. In these respects they need the same treatment as necessitous hearing children. 3. The education, but not the instruction, of deaf children should begin as soon as the fact of deafness is known, and the mothers should be the first teachers. Unless the speech-habit be acquired before the age of five years the best oral results can seldom be got. 4. If the physician and the teacher are to co-operate in the work of educating the deaf child, there must be not only medical inspection of all school children but there must be a specialist attached to every school or institution for the education of the deaf.

G. Hudson-Makven, Philadelphia, considering the Physiology and Psychology of hearing, says:

Summary. The physiology of hearing has been a subject for investigation and study since before the Christian Era began, but Helmholtz was the first to place it upon a scientific basis. Helmholtz' "resonance theory" with slight modifications is the one now most generally accepted. The only important modifications of the Helmholtz Theory has been the substitution of the tectorial for the basilar membrane as the resonance body.

The importance of hearing as a factor in the development of speech is of later recognition and even now it is not generally understood. Spontaneous speech development takes place only as the individual is capable of hearing speech sounds, both subjectively and objectively, and speech acquired in any other way is a forced and artificial product. A little hearing in the development of speech is better than no hearing at all, and hearing, like speech, may be improved by training.

The eye is the best substitute for the ear in the development of speech, but the tactile and other avenues to the brain may be trained to take the place of either or both under favorable conditions and in case of necessity.

The symposium includes several excellent articles by teachers of the deaf,—Mrs. J. Scott Anderson, Edward M. Gallaudet, A. L. E. Crouter, J. W. Jones, Mary McCowan and several aurists.

**Some Observations on the Removal of Tonsils, by Norton L. Wilson,** of Elizabeth, N. J. In the *American Journal of Surgery,* June 1910.—I am convinced from my observations of the various operators that the personal equation plays a very big role. One may use a tonsillotome and another a snare, but both enucleate the tonsil with equal facility. My own method is to separate and cut the plica with a Leland knife, made a little sharper on the end, but not pointed. The finger is then introduced and if any adhesion or bands of plica remain I break them down. The tonsil is then pulled gently toward the median line with forceps. I believe that the wire will follow the path of least resistance more easily than a knife and the wire snare is therefore used. Preference being given to the Kratz-Muller or Peters, because it can be worked with one hand. I think that it is much safer to grasp a tonsil with forceps and pull it toward the median line than to push it toward the median line from without inward, at least there is removed the danger of dropping the tonsil into the larynx by the use of forceps. The question of the anæsthetic is still worthy of serious consideration. I prefer to operate in the upright position under local anæsthesia, when possible, but as yet I have not had the courage to etherize my patients and put them in the upright position.

# MEDICINE

Conducted by

W. K WEST, M. D., Painesdale, Michigan

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**The Treatment of Hemorrhage from Gastric Ulcer.**—In the June 1910 number of the *American Journal of Medical Sciences*, Kaufmann of New York City writes on the treatment of gastric ulcer. In considering the treatment often practiced by physicians, much of which he condemns, he says, "Formerly styptics were used a great deal—acetate of lead, perchloride of iron, oil of turpentine, etc. As hæmostatics they are unreliable, while on the other hand they are apt to increase the ever present and annoying nausea, and often excite vomiting." He has seen benefit from ergot by mouth or hypodermically. "Adrenalin has the great disadvantage that the vaso-constriction produced by this drug is followed by a period of vaso-dilatation, which may cause a renewal of the hemorrhage." He condemns very strongly the routine treatment of stimulation and says, "When the desired effect of energetic stimulation has been reached, the vigorous action of the heart will eventually result in freeing a freshly formed thrombus and thus cause a renewal of the bleeding. Since the continuation of the bleeding forms the main danger of such situation, it is obvious that energetic stimulation may increase the danger by bringing about exactly what we should try to prevent. For this reason it must be considered unwise to resort indiscriminately to vigorous stimulation." Of internal remedies he considers bismuth subnitrate the most reliable, particularly when given after gastric lavage. He thinks gastric lavage the most important thing in the treatment, providing it is carefully applied. He does not believe the danger of perforation and disturbance of the rest of the stomach, the objection usually raised against it, exist. As for its advantages, he states:

"I have already mentioned the release of partially occluding thrombi. A further very striking advantage is the benefit of lavage when the stomach is distended by large quantities of contents. These stagnating masses are usually very sour and fermenting, and their presence not only causes nausea and pain, but acts very harmfully by constantly irritating the mucous membrane to intense hypersecretion, thereby further increasing the amount of gastric contents. Again, the fermentation always connected with such conditions invariably leads to pronounced and sometimes to enormous gas distension of the stomach, so that when the tube is introduced the contents shoot out under high pressure, even, as I have experienced, with an explosive sound. . . . The removal of fermenting masses not only relieves the annoying symptoms of gastric irritation, but eventually brings about a direct cessation of the bleeding by allowing the empty stomach to contract and this aids in the occlusion of the eroded vessels. The evacuation of the stomach and the contraction which follows it are of the greatest importance for the improvement of circulatory disturbances. I saw cases of gastric hemorrhage in which the pronounced symptoms of insuffiency of the heart were only in part due to anæmia, but were to a much greater extent caused by the pressure of the gas distended stomach against the diaphragm and heart. In these cases circulation was at once improved when the stomach was emptied, while the anæmia remained unchanged. . . . The understanding of such conditions has been greatly advanced by the recent study of acute gastric dilatation. . . . It is generally admitted that the most rational and the most effective treatment of acute gastric dilatation is prompt evacuation by lavage. This holds true for cases of acute dilatation in connection with hemorrhage."

In considering operative measures, he says, "I only wish to emphasize that in contemplating operative measures we should distinguish more clearly between operations performed for the purpose of perfecting a final and complete cure of the ulcer and those operations which are undertaken for the immediate control of hemorrhages." A radical operation he considers has much better chance of success if performed after the hemorrhage is controlled.